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AUG 29 1905

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TO

THE VERMONT MEDICAL MONTHLY

A JOURNAL OF LOCAL REVIEW, REFORM AND PROGRESS IN THE MEDICAL SCIENCES.

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VOLUME X.

JANUARY TO DECEMBER, 1904.

THE VERMONT MEDICAL PUBLISHING COMPANY,

BURLINGTON, VERMONT.

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THE

Vermont Medical Monthly

Official Organ Vermont State Medical Society.

Vol. x. No. 1. Whole No. 109. | Burlington, Vt., Jan. 25, 1904. | $1 per year. Single copies, 15 cts.

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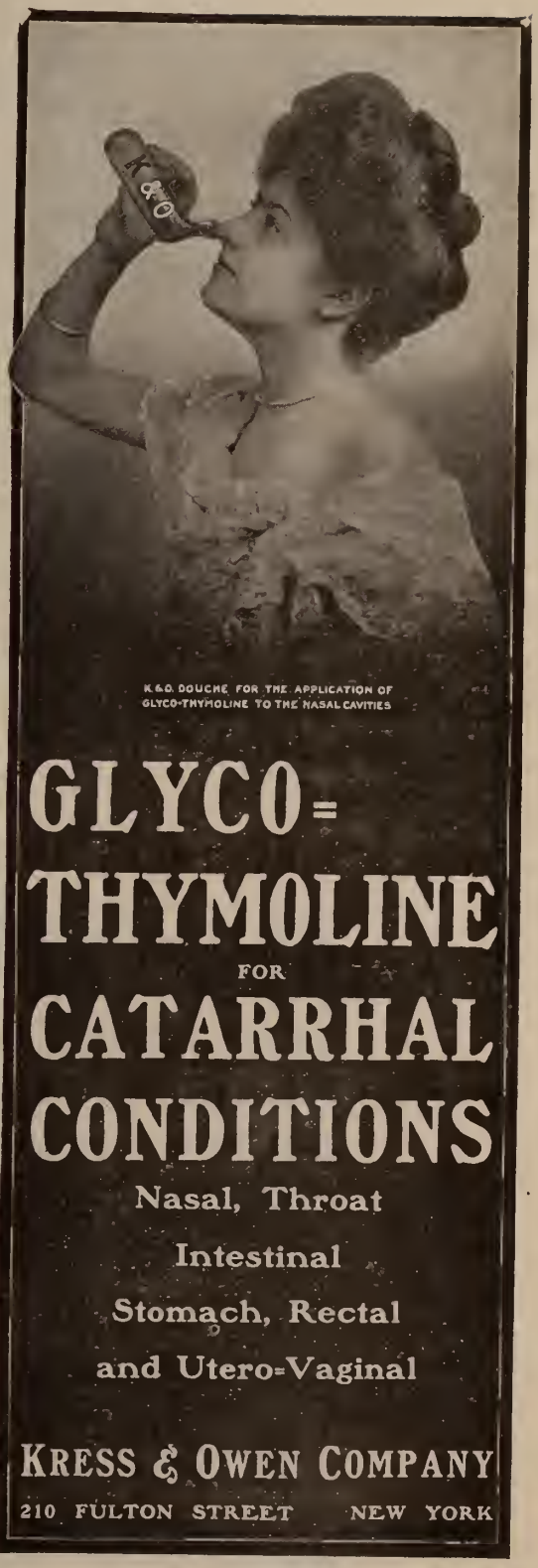

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The Vermont Medical Monthly

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ORIGINAL ARTICLES.

APPENDICAL COLIC.

By A. Lapthorn Smith, M. D., Surgeon-in-Chief of the Samaritan Hospital for Women, Montreal, Canada.

There is considerable resemblance in many cases between colic in the appendix and colic in other tubes of the body where pain is due to spasmodic efforts of the tube to pass something along which meets with an obstruction. In the case of the appendix there is a muscular tube closed at one end which is normally open at the other, and through this opening there is usually free drainage into the cæcum. As a rule we do not feel this drainage going on, because the tube gets larger towards its open end, so that the secretions from its mucous membrane experience no more difficulty in passing than do the contents of any other portion of the bowels. But when the appendix becomes diseased, its larger end then becomes the smaller one, even in some cases becoming closed altogether, and the liquid contents are either expelled with great difficulty or cannot be expelled at all.

This is much more the case when its contents are abnormal, such for instance as a fæcal concretion or a foreign body of some other kind. A very small piece of hard faeces or a grape seed being unable to escape, sets up irritation, and soon a great quantity of altered mucous secretion is poured out; there is in fact a diarrhoea of the appendix. Then the intruder becomes the nucleus of a concretion which becomes covered with successive layers of lime or other salts until it is not only hopelessly imprisoned, but even becomes so large as to strangle the circulation, thus causing gangrene and fatal perforation.

The formation of the concretion can be imitated by placing a glass bead or other foreign body in an oyster, when after a certain time it will be found covered with concentric layers of carbonate of lime and this becomes the precious pearl. No one can say that the stone in the appendix is a precious one, although it cannot be denied that it is sometimes a costly one by the time that it is removed.

The vermiform appendix has a very near neighbor in the female organism, namely the appendage of the generative or utero-vaginal tube, but it is called the appendage of the uterus to distinguish it from the vermiform appendix of the intestine, which it exactly resembles in structure. It is composed of circular and longitudial fibres, covered with peritoneum and lined with mucous membrane; it also becomes infected either by the colon bacillus or by the gonococcus, so that its mucous membrane is destroyed at its proximal end, that is, the end nearest to the organ of which it is the appendage, and is replaced by scar

tissue, which here as elsewhere, as in the male urethra for instance, has the power to contract until a stricture results, and the contents of the tube experience more and more difficulty in escaping. This causes tubal colic of the Fallopian tubes and the woman suffers these intermittent pains until the muscular walls exhaust themselves, when she gets a longer or shorter respite. Being unable to escape in the normal direction the peristaltic contractions reverse themselves and try to force the contents of the tube in the opposite direction, through the distal end of the tube. Here, as is sometimes the case with the perforated vermiform appendix, a local peritonitis is set up which saves the general peritoneal cavity from infection. In both cases a walled off abscess is the result, which may rupture later into the general peritoneal cavity, into the bowel or bladder, or into the vagina, unless the patient has the good fortune to consult a doctor who advises immediate removal of the dangerous and now useless organ.

We find the same colicky pains in two other tubes having a mucous membrane and muscular walls, namely the ureter, which carries urine from the kidney to the bladder and the common bile duct which carries bile from the gall bladder and liver to the intestine. These pains may be due to the obstruction caused by catarrhal swelling of the mucous membrane, or to a stone which is the result of allowing the secretions to become so thick as to precipitate their saturated solutions of salts.

The colicky pain in all three cases is due to the same thing, namely, the frantic efforts of these respective tubes to push along an obstacle which is larger than the tube.

Then there is the colic of the colon, from which all colics derive their name, due to a kink in the ascending, transverse or descending colon, although in this case the obstruction is itself due to a spasm and not to a stricture, and the contents instead of being a concretion are generally liquid or gaseous, and are soon forced onward. In all of these cases the pain is severe, and in the case of the vermiform appendix and the fallopian tube should be cured by operation without delay; while in the case of renal stones and gall stones, although an operation is not so urgent, yet delay in operating greatly increases the difficulty and danger.

I have mentioned these other forms of colic while speaking of appendical colic, because it becomes important to recognize the possibility of their existence and also their resemblance when diagnosing a case of appendicitis, for it is sometimes almost impossible to tell which of these organs is the cause of the pain. Such for instance was the following case sent to me at the Samaritan Hospital by Dr. Sharpe, one of our staff:

Mrs. H., 56 years of age, a mother of four children and two miscarriages, last pregnancy fourteen years ago. Menopause at fifty. Had good health and did all her own work until a few days before admission, when one day, working at the wash tub, she was suddenly taken with a severe pain in the right side and was barely able to crawl into bed. She began vomiting, and when Dr. Sharpe saw her a few hours later she had a temperature of 103 and a pulse of 120. On examination, there was a tense swelling larger than an orange, the centre of which was exactly situated at McBurney's point. The right side of the abdomen was tender and tense; it was dull, no percussion and fluctuating, and all those who examined it had little hesitation in saying that it was a case of appendicitis which had reached the abscess stage and which was walled off by adhesions, and all agreed that it should be opened and drained without delay. This was done, the incision being made exactly over McBurney's point, and in going

through the layers, the tense pus sac was reached and a large trochar was driven into it, when at least a pint of thin pus escaped. The trochar was removed, the opening enlarged with the finger and the cavity thoroughly cleaned out, some debris of cellular tissue being removed by the fingers. My rule in these cases is not to break down the wall of defense, and as the appendix could not be readily found, the search for it was abandoned before any harm was done. At the bottom of the abscess a round dark solid body could be seen and felt, which was evidently the right kidney apparently prolapsed, and I remarked to Dr. Sharpe that prolapse of the right kidney was recognized as a factor in causing appendicitis. Two pieces of drainage tube were inserted and gauze was packed around them to keep away the intestines, for a healthy coil of the latter had come into the incision towards the end of the operation. The good results of the intervention were immediately apparent; the pain ceased, the pulse and temperature fell to normal and the patient was making a rapid recovery during three weeks, when she was to have been allowed up, had there not been a sudden return of all the symptoms. This time, however, the swelling was four inches higher up and double the size of the first one. The abdomen was again opened by extending the original incision upwards and backwards, when without opening the peritoneal cavity, the abscess sac was reached, emptied with a trochar, more than a quart of pus escaped this time. The trochar was removed, the opening enlarged with the fingers and the cavity explored with the hand in it, when it was found to be the right kidney distended to such a size that one could feel almost every part of the abdomen through its thin sac-like wall. The question then arose whether to leave it and drain, or remove it? Before deciding on the latter course the other kidney was easily felt, apparently normal in size, through the wall of the diseased one. The sac was easily separated from its adhesions and the pedicle tied in several fragments. After tying the artery and vein, and when pulling up the ureter to ligature it, a calculus the size of an almond was felt and could be seen through the wall of the tube, which seemed to be ulcerated almost through, for no sooner was the slightest pressure applied to see if it could be pushed back into the kidney, than it came through the ureter, leaving a hole the size of a ten cent piece. The ureter was tied a little lower down and dropped, when the kidney came out as easily as an ovarian cyst. The patient made a good recovery and returned home three or four weeks later.

The probable course of events in this case was that a stone had formed in the kidney, got blocked in the ureter, which latter it ulcerated through by pressure in the same way that a stone in the appendix ulcerates through, and the dammed back pus and urine which had distended the kidney and ureter above the obstruction, poured out through the opening in the ureter into the cellular tissue, causing the rapid rise in pulse and temperature and the swelling at McBurney's point, which it was so easy to mistake for appendicitis. The kidney which was seen at the bottom of the incision at the first operation was here, not because it was prolapsed, but because it was still enormously distended. The second swelling occurred because the opening in the ureter was blocked by the packing and manipulations of the first operation, causing the kidney to refill. There was no pus in the urine, because that kidney was shut off from the bladder by the calculus. The question of saving the kidney was discussed, but Dr. Sharpe told me of a case of his in which a urinary fistula kept the patient in almost unbearable misery for a whole year and I concluded that that was too high a price for my patient to pay for keeping such a bad

kidney when she had a good one left. My patient made a rapid recovery and is now quite well.

248 Bishop St., Montreal.

THE TREATMENT OF EFFUSION OF THE CHEST.*

By William Wotkyns Seymour, M. D., Troy, N. Y.

It is not my purpose to enter at length upon the origin and pathology of the various kinds of effusions in the chest, especially as I desire to confine myself to those particularly which are amenable to surgical treatment. Consequently the cases of hydrothorax usually double and dependent upon affections of the heart and kidneys, we may exclude from the beginning; the same may be done with effusions of blood dependent upon morbus maculosis Werlhofii and the effusions associated with malignant disease. My paper, therefore, will deal with those pleural effusions which we may clinically divide into serous and purulent according to character of the fluid and into acute and chronic according to their duration. One important fact we must bear in mind, and it is that true idiopathic pleurisy is quite as rare as idiopathic peritonitis, and the term is only to be used with a mental question mark as applied to those effusions the true cause of which remains undiscovered. A class of effusions of gradual development does occur, which gives rise to so few prominent symptoms that frequently they are only discovered by a routine examination, or because of the dyspnoea on exertion which is associated with great general weakness, such effusions are very properly classed as *latent* pleurisies. The cause of these latent pleurisies is most commonly either a milliary tuberculosis of the pleura, comparable to the similar condition of the peritoneum or an apical tuberculosis of the lungs. As to the acute pleurises, they may result from injury to the chest and ribs, and to perforative wounds, but in most instances they depend upon acute disease in the neighboring lung, or upon bacterial invasion from the lung, the mediastinum, or the sub-diaphragmatic organs. Of the acute or sub-acute pleurisies the most important clinical division is into serous or purulent effusions; from a serous effusion we may delay at times the removal of the fluid, but in a purulent effusion there never ought to be any delay. In serous effusions unless the quantity is excessively large and is of long duration the compressed lung may recover its elasticity and by its expansion fill up the chest, but in purulent effusions the disposition of lymph and fibrin form thick coats upon both parietes and the viscus and soon become so organized as to prevent any expansion of the lung if the fluid is removed. Hence the golden practice should be the earliest possible removal of purulent collections. I also believe as a result of twenty-five years observation that a similar practice in the case of serous effusions is not only not injurious but decidedly advantageous to the patient. Internal treatment and local medication may suffice for the majority of serous pleurisies, but I believe from my own experience with these cases that if there is an effusion of a pint or more that prompt removal by aseptic aspiration will greatly hasten recovery. As to the methods of evacuation in simple serous pleurisy, none is better than aspiration with a large needle under asceptic conditions. Some have raised a cry against removing all the fluid at one time in case of large effusions, fearing hemorrhage or syncope. Following the teachings of the great pioneer, Henry I. Boroditch, who in nearly four hundred cases never saw the slightest trouble from complete removal of the fluid, I have always sought to empty the chest completely. This can be easily done if

* Read at the 90th Annual Meeting of the Vermont State Medical Society.

one takes time and from time to time stops aspiration so as to give the lung a chance to expand. A case from my practice will illustrate how little one has to fear the careful, slow removal of even a very large quantity. Some fifteen years ago an iron-worker, thirty-five years of age, entered my office and complained to me of great weakness and shortness of breath on the slightest exertion. His color was ashen and his lips were bluish and the alae of his nostrils dilated with every inspiration. I had him stripped to the waist and inspection showed a left chest totally out of action, the intercostal spaces widened and immovable, and the heart's apex beat to the right of the sternum. At no time had he any pain or marked fever. I regarded the indication for tapping as a vital one and advised immediate removal, to which the patient assented. After thoroughly sterilizing the chest and my aspirator, I introduced a large sized needle into the eighth intercostal space in the scapular line and slowly withdrew four quarts and one pint of serum. The aspirator was checked from time to time so as to permit the lung to expand. The patient not only felt no inconvienience from the removal, but left my office with the lung well filling the chest, and the apex beat to the left of the sternum, although it did not reach its normal situation for three days. A week later I removed a pint, and two weeks from the first aspiration a half pint. From that time on recovery was assured, and the patient soon returned to work. In a great many cases I have followed the same course, removing two or more quarts with never an unpleasant accident. The early removal of serous collections relieves the patient of the effect of absorbing the fluid and very considerably shortens the period of convalescence and recovery, and in some cases absolutely prevents permanent damage to the compressed lung. I can therefore see no reason for hesitating in employing a procedure so potent for good and so free from harm to the patient. In the cases of chronic pleurisy with serous effusions I believe if repeated aspirations become necessary, it is better to resort to a free incision with drainage under antiseptic conditions, usually with excision of a rib, than to rely on any of the various methods of permanent drainage with siphonage. With asepsis or antisepsis there is now no longer any reason to fear the more thorough procedure, especially as the latter permits the removal of all coagula of fibrin or lymph, which are sure to be precipitated from all effusions of long duration, even serous, and which so frequently become organized into thick parietal or visceral deposits, preventing the normal restitution of the lung. When pus occurs, its prompt removal is imperative. Here it is important to bear in mind that the supernatant layers may be serous while the deeper layers are purulent. So that in all cases in which an exploratory puncture is made with a hypodermic needle, the fluid should be examined microscopically. If it has a bacterial content or is purulent, a free evacuation by incision and excision of a rib should be done. In this manner the chest can be more thoroughly emptied, not merely of the liquid, but also of the coagula of lymph and fibrin and the finger or sound may be employed to break up adhesions and septa, which can not be done through the usual simple incision. If purulent collections are promptly emptied and drained before thick layers of fibrin have been deposited upon the lung, restitution of complete function is the rule and usually the restitution is a matter of days rather than weeks. The treatment of empyemata, involving at the same time both sides of the chest, is one which has led to much theoretical reasoning which later practice has shown to be unfounded. It was formerly thought that the two sides could not be drained by free incision at short intervals of time without giving rise to inevitably fatal complication, due to artificial pneumothorax. And the

usual procedure was to gain time by draining the more urgent side and temporizing with the other by aspiration until the first lung has well expanded. As time passed the interval between operations was gradually made shorter and shorter until, instead of several weeks, only a few days were allowed to elapse. The results, if anything, were even better than by the old plan of long delay. Some recent accident cases show that where artificial pneumothorax has resulted in both sides from perforative wounds a most successful issue has followed the free incision of the imperfectly drained chest, combined with gauze drainage and a firm aseptic or antiseptic occlusive bandage. Were I to meet with a case of double pyo-thorax, I would drain both sides by excising a portion of the rib on each side, but I would make my skin incision a flap incision coming well below the drainage opening and after drainage by gauze and a collapsible tube, would apply a thick occlusive bandage. In so doing it might be better to complete the dressing of one side before attacking the other. When there has been delay from dawdling or late recognition of the empyema, we are confronted with one of the most serious problems of modern surgery. Serious, because the delay results in most cases in a lung covered with a rind incapable of distension, which holds the lung as in a vise, and when the fluid is removed is incapable of taking the place of the evacuated fluid, so that there remains a secreting cavity with more or less rigid walls. Such a cavity will keep on secreting for months or years, exposing the patient to all the dangers of sepsis or an exhausting discharge. If the openings are closed the accumulation of fluid leads to absorption of organic substances, occasioning fever and depression, and affecting severely the general nutrition. We have therefore in cases of old empyemata in which the lung is compressed and bound down by adhesions and organized fibrinous deposit, the double problem of permanently emptying the cavity and effacing it. We can empty it by incision, or better, by incision combined with excision of a portion of one or more of the ribs, but this alone is ineffectual in effacing the cavity unless extremely small. Therefore, Estlander and others, notably Schede, have made extensive resections of the ribs and even of the thickened parietal pleura, and after curetting the visceral pleura have applied the resulting flap to the cavity by suture and tampon so as to efface it. The operation is a very severe one, but one warranted by the otherwise hopeless outlook for the patient, and its results have won back to health, usefulness and self-support many a patient who otherwise would have dragged out a brief and miserable existence.

To Delorme of Paris belongs the credit of approaching the problem from still another direction, a direction in which I believe lies a very brilliant future for these cases with compressed and bound down lungs. Delorme proposed, and in a number of cases carried out, what he called decortication of the compressed lung; ridding it of the thick rind or bark of lymph or fibrin which held it down. The advantage of Delorme's procedure as contrasted with those of Estlander and Schede is that it aims to restore to the lung its expansibility and function. While the operations of which the Estlander is the type does not improve the function of the lung, but aims simply to efface the cavity which the contracted and fixed lung can not fill. Delorme made incisions through the thick investing rind down to the lung tissue and then with sound, finger, or even the while hand, peeled up the rind and excised it with scissors. In the experience of Delorme, Roux and others, the lung has expanded with great rapidity in very many cases. In others two hours or more have been required for completion of the operation. While in a few cases of impermeable lungs, or where the membrane was inseparable, the true aim of the operation

has failed, that is, the lung's expansibility and function could not be restored, but the operation could be transformed into an Estlander. The immediate dangers of the operation are small, there being no death in twenty-nine cases.

My conclusions are that no delay should be allowed in removing a purulent effusion, and better none in the case of serous effusions. Aspiration will suffice for most cases of serous effusions; but for purulent collections nothing but the freest drainage by incision and excision of parts of one or more ribs will suffice to meet all indications. In neglected cases we must resort either to extensive excisions, as in Estlander's and Schede's operation, or we must adopt Delorme's procedure of decortication. That this latter has a great future I have no doubt.

ELECTRICITY IN THE TREATMENT OF DISEASES OF THE STOMACH.†

By Dr. G. G. Marshall, Wallingford, Vt.

How electricity acts and just what it does, when applied direct, in the treatment of the stomach, is not understood. It is, therefore, used empirically, and we depend on clinical observations as our guide in its use. The history of this mode of treatment I have reviewed in a previous paper published in the *Medical Record* of August 8, 1903, and I will now proceed to such practical points as may interest us.

The diseases of the stomach in which electricity is used may be divided into those of a nervous or functional nature, and those of organic origin. In the former class, electricity will be found useful in hyper-acidity, an-acidity, nervous anorexia, vomiting dependent on deficient innervation, and perhaps most of all in the treatment of gastralgia.*

Of the organic stomach diseases in which we may use electricity with the hope of bentfit, the most common are chronic gastritis and stomach dilatation. It may also be used with benefit in the treatment of cardial dilatation (eructation of stomach contents into the throat) and pyloric dilatation (shown by presence of bile in the stomach), and in cases of more or less atrophy of the mucous membrane of the stomach (shown by a constant diminished secretion of Pepsinogen & Hcl.) It is also of benefit in the treatment of gastroptosis. These in general are the conditions in which electricity is most frequently used.

Neurasthenic patients suffering from many and varied symptoms referable to the stomach, such as a sense of constant beating, or a sense of either a fullness or faintness, might with equal propriety be given this mode of treatment. No acute or malignant diseases are to be treated by electrization. As to the kind of current used, the galvanic will generally give the best results in all nervous affections of the stomach when a sedative action is required, especially in cases of gastralgia.

In cases of stomach dilatation or chronic gastritis the faradic current gives equally good or better results. As to the mode of application, authors differ greatly. Some advocate the intra-gastric method, discrediting the percutaneous application altogether. Others report good results by the latter mode, and see no advantage in the direct or intra-gastric method. Still others are skeptical of the use of electricity in any form, believing any benefit that may be obtained is due to so-called "suggestion." While there is this diversity of opinion as to its benefit and mode of application, the large majority of writers are enthusi-

† Read before the Rutland County Medical and Surgical Society, January 12, 1904.

* It is doubtful if muscular inactivity of the stomach is benefited by the use of electricity, unless it be caused by a lack of nerve energy.

astic advocates of the intra-gastric electrical treatment, and in the paper previously mentioned, I have at some length quoted from several of these authors.

That I may give you the views of some experienced men, I will read extracts from letters written in response to an inquiry about their personal observations in the use of intra-gastric electrization.

Dr. J. Warren Acorn, of Boston, writes as follows: "I have found direct electric currents beneficial in gastric hypersthenia, in gastralgia and mucous gastritis. I think the tonic effect better than the mental effect."

Dr. C. C. Nicola, superintendent of N. E. Sanitarium of Melrose, Mass., writes: "We employ internal faradization generally in atonic conditions of the stomach, especially where there is considerable relaxation and dilatation of the organ. The faradic current stimulates muscular contractions. We also employ the galvanic current occasionally in cases of gastralgia and other painful conditions not due to malignant diseases. The results of treatment are generally very satisfactory. In some cases, I have no doubt, that the mental impression is an important factor, but this could hardly account for the reduction of dilatation which is often manifest."

Dr. MacFarlane, Adj. Prof. in Albany Med. College, says: "I have seen marked benefit in very obstinate cases of gastric neurosis with hyper-acidity."

Dr. Hagedorn of Gloversville, N. Y., writes as follows: "I have been treating two cases of neurasthenia with sub-acidity and have found some improvement, especially in the way of general nutrition and innervation. In another case of gastralgia superinduced by an old ulcer, I found marked improvement."

Dr. Chas. D. Aaron, Sec. of the "American Gastro Enterological Association," writes that he has used the internal electrode "with a great deal of success."

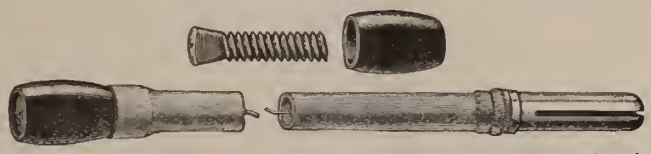
Walter H. White, "Associate Ed. of Advanced Therapeutics," writes: "I usually obtain satisfactory results. Faradism or induction current do contract muscular fibres. Galvanization or the constant current acts on dilatation in the same way, using, say 10 M. A. for five minutes and reversing the current for the same time. Static waves will do the same. This decreases the size of the stomach, so there can be no cry of 'suggestion.' Let any who cry 'suggestion' take a few doses and they will be compelled to change their mind." The Doctor continues as follows: "You can demonstrate the changes in stomach dilatation, as you probably know, by means of bismuth sol. and X-ray. I have written more at length, as I so often meet that cry of 'suggestion.' I might say right here that when speaking with Prof. Manges of the N. Y. Polyclinic, that he expressed himself as believing that all the good derived by intra-gastric electrization was due to this same suggestion."

Dr. L. H. Neuman, Prof. in Albany Med. School, writes: "It seems to me that electricity has a very restricted use in diseases of the stomach. I have found it of some benefit in toning up the abdominal muscles by faradism, making and breaking the current, but have had serious doubts as to its effect on the stomach itself. The intra-gastric use of galvanism as a sedative in gastric hypersecretion has been used by me, but as I have had better results from suprarenal gland, I now use electricity rather infrequently."

Personally I have never used intra-gastric electrization except when I had failed to alleviate the patient's symptoms by repeated efforts in the more usual way. But by the use of electricity I am sure that I have been able to relieve many distressing symptoms, and pa-

tients who had been unable to take sufficient nourishment before the treatment have been able to enjoy their food after a course of intragastric electrization.

I think it matters little which pole is placed within the stomach, some recommending one, and others the opposite pole. For the external electrodes, I use a somewhat larger sponge over the stomach and by means of a Y cord, apply a second and smaller one on the sides of the neck over the tenth nerve. The settings should continue about ten minutes. The faradic current is used with sufficient strength to produce contractions of the abdominal muscles; the galvanic, about 10 to 15 M. A.



In preparing to administer this treatment, the connections should all be in readiness so that the patient need not retain the electrode longer than necessary. In the choice of electrodes, I may be pardoned, that I prefer the one I have devised and which is illustrated by the accompanying cut.

CHLOROFORM AND CONSCIOUSNESS.

By Charles Caverno, A. M., LL. D.

I have in view a point in psychology. Particulars are subsidiary to that.

"You are a case for the hospital," said the physician. "Go down Tuesday, select your cot or room, get registered, written up, and have your preliminary examinations. I will come down Wednesday, complete the examinations and then we will determine on the anaesthetic and have the operation." To say the truth I was more perturbed about the anaesthetic than anything else. Anaesthesia of some sort I must have, but I was timorous about chloroform, though I knew that would be most perfect. But years were against me; so too the wear of the trouble from which I sought relief. When the time for decision came the surgeon asked the corps of hospital aids: "What is the condition of this man?"

After examinations one doctor said: "Heart, dandy." Another said: "Pulse like a pioneer." Another said: "He has bronchitis in his left lung, but put both lungs together and they would wreck an annuity company."

"Kidneys? What report?" "Sound." Some other matters were reported from the preliminary examinations. Then the surgeon said: "What anaesthetic is indicated for this patient?" Chorus: "Chloroform." Thereupon I executed a right about face in mental attitude. To begin with my vanity was tickled (a result doubtless intended) over such reports concerning my physical condition, and that was pleasant. But beyond that I took the expressions of the doctors as indicative of their reliance on an agent and process in which they were scientific experts. I felt the utmost confidence in them and every element of anxiety fled.

"Lie down on the table," said the surgeon, "draw full breaths—count your breaths, to yourself, and when you have counted a hundred, call out the hundred to me."

The first sniff of the chloroform was pleasing, and never as a tired boy on the old summer husk bed did I welcome oncoming sleep more than I did the anaesthesia stealing over me. The last physical sensation I had was the pulling on of sterilized stockings by some of the assistants; and the last mental operation of which I was conscious was counting thirty-nine on my way to my hundred. An hour later I woke up in my bed in another story of the hospital.

But now I have passed by the particular psychological point for which I write this paper. When the surgeon said, "Tell me when you have counted a hundred," I knew that was a ruse—I knew I should not get up to one hun-

dred in my counting, but I registered a resolution that if any time I came up to consciousness I would begin to count at one hundred to show that the anaesthesia was not perfect. That was the presiding act of will with which I entered the realm of unconsciousness. One hour after, *before I came to consciousness,* I counted aloud with a good strong voice: "One hundred, one hundred and one, one hundred and two." When consciousness came, the nurse who was attending me, and who had not heard the surgeon's direction, asked me why I was counting. I had no memory that I did count, and have none till this day. *The act was done in unconsciousness. That is the point in this case.* A little review will bring out its significance clearly. I had had an hour of surgical treatment—irrigated as if a Filipino culprit, tossed from cot to table, operated upon, tossed from table to cot, wheeled through corridors, lowered by the elevator and transferred to my room and bed, and yet my will picked up its registry of an hour before as accurately as a button turns on electric light. Of course I was coming to the dawn of consciousness but I had not got there when I began to count.

My case shows attention and memory intact and the will as a rational regulative faculty in *unconsciousness.* This may seem a common fact, but is it? Matthew Arnold says:

"Tasks in hours of insight willed
Can be through hours of gloom fulfilled."

That is but a common work-a-day experience *in* consciousness. We can join on in the morning to that which we left off at night. But this is all done in the daylight of self-recognition. Scott comes very near my case—

"By manly mind
Not even in sleep is will resigned."

But even then the execution of determined acts is impliedly to take place when consciousness becomes regnant. My case may be said to resemble the psychology of somnambulism, but does it? I am not familiar with the testimony in cases of somnambulim. But I doubt if there is much proof of the execution in somnambulism of previously registered edicts of will. What is done, usually, in that state seems to be done rather by suggestion as experiences arise before the sleep walker.

I am not disposed to theorize much on this case, but it seems to indicate that the self goes pretty deeply into the realm of unconsciousness and maintains its identity there. In one way of looking at it consciousness appears to be a coruscation, an aurora-play up from something deeper and more radically essential. Consciousness seems mainly recognition of self in relation with environment. There is something basic in man beneath such recognition—something that shows there still the regency of mind. This case affords a glimpse of rational work done beyond the realm of consciousness. It pushes duality back a step beyond our perception of it in conscious observation. I leave to others the deductions of further conclusions.

I want to add a practical word. It comes about that a great many intelligent people submit to surgical operation under anaesthetics. If they would only give their attention to their psychological experiences we might in a few years work out on the frontier of consciousness to more certain and satisfactory results than has yet been attained in the whole history of the race.

A problem of this sort before the mind would take attention from one's physical self, which is a very desirable thing for a patient.

There is no reason for mental perturbation about anaesthesia. There is nothing human much more certain that that, if one under proper medical care is put under the influence of chloroform, he will come out from it without harm. I do not think nausea even is a necessary or natural result of its use. I did not have a qualm of it. I attribute my deliv-

The Day Pavilion.

A Sanitarium Group.

The Office.

The Sanitarium Road.

The Park and Some of the Buildings.

Entrance to Sanitarium Park.

erance from that to the entire abandon with which I gave myself up to anaesthesia. Antecedent mental conditions I feel sure have much to do in warding off subsequent unpleasant experiences from the use of chloroform.

Lombard, Illinois.

NOTE.—I had written this essay before I read the address on Consciousness of Professor Charles S. Minot, President of the American Association for the Advancement of Science, delivered in Pittsburg, June, 1902, and published in the August number following, of the *Popular Science Monthly*. I take from that address this sentence—"We have learned to recognize in consciousness a device to secure better adjustment to external reality." I call attention to the statement of the same view in one of my sentences above, and to the close similarity in the language in which it is expressed.

THE CHAMPLAIN OPEN-AIR SANITARIUM FOR PULMONARY DISEASES.

The Champlain Open Air Sanitarium was established in 1903, to meet a demand for a first-class institution for the open air treatment of pulmonary diseases in Northern New England. It is situated at South Hero, Vt., on the west side of one of the most beautiful and fertile islands in the world. For scenery and natural advantages the location of the Sanitarium cannot be excelled. The buildings set well up and back from the Lake on a broad rocky ledge, well drained and protected from winds, by beautiful rows of red cedars, balsams and pine trees. The Sanitarium grounds comprise sixty acres of cultivated and timber land, twenty acres of which immediately surrounding the cottages make a veritable park with lovely walks, shady nooks, and delightful places for rest and quiet.

The Sanitarium is distinctly a summer institution open from May to November. During this time the climate is especially adapted to the treatment of pulmonary complaints. It is mild but invigorating with warm days and cool nights. The atmosphere is remarkably clear and absolutely free from dust. This is one of the most striking features of the location, the absolute purity of the air, and taken in connection with the conditions of the soil which are ideal from perfect drainage, the most favorable opportunities are offered for the treatment of all pulmonary or catarrhal ailments. The improvement shown by every patient treated at the Sanitarium during the summer of 1903 was little short of marvelous. Every patient gained from 3 to 18 pounds during the 14 weeks the institution was open. Coughs decreased and entirely stopped, appetites grew to alarming proportions, fever entirely disappeared and strength rapidly returned to worn out weakened bodies. Patients who had not known a good nights rest for months before coming to the Sanitarium, slept as sound and restfully as little children, from the first night after entering the institution.

The measures employed at the Champlain Open Air Sanitarium for the cure of pulmonary diseases, are really fourfold, out-door living, practically day and night, rest or exercise depending upon the case, ample systematic feeding, and medical treatment carefully adapted to each individual patient.

Out-door living.—Every patient is made to spend every moment in the open air. Daytimes out-doors in the sunlight or on the broad piazzas of the day pavilion; nights in the open air cottages with the doors wide open. It is remarkable how patients take to these methods, as the benefits become apparent to them. The pure, stimulating air makes them feel better from the first, and it does not take many days to make them eschew indoor life entirely.

Rest or exercise.—A certain number of cases on entering the Sanitarium are forbidden all exercise. The object of this is to lower the temperature and conserve all energy necessary to the welfare of the individual. When

no contra indications exist patients are encouraged to walk, row and engage in such simple sports as croquet, ping pong, etc. Daily drives are taken over the beautiful island roads and these form a very pleasant diversion for those who are able to take them.

Feeding.—The food provided for the patients of the Sanitarium, is of the most nutritious character. The farm attached to the Sanitarium provides ample quantities of all kinds of fresh vegetables, and milk, butter, poultry, eggs, etc. Variety and quality is the constant aim of the *cuisine* as well as quantity, and a strong feature of last season was the character and variety of the food provided. Out-door living at the very first stimulates appetites to a marked degree, and varied light nourishment in the form of raw eggs, milk, bouillon and the fruit juices is served by the nurses as soon as patients arise, also between each meal and the last thing on retiring. The object of this is to encourage an increased consumption of food and stimulate the digestion and assimulation by the administration of easily digested foods. Every thing in the way of fruits and vegetables is provided in season. Few first-class hotels in the United States provide a better table than will be found at the Sanitarium.

Medical Treatment.—The Sanitarium is under the direct supervision of Dr. H. Edwin Lewis, who has made a special study of pulmonary diseases and the treatment of such disease in sanitaria. Every patient on being admitted to the Sanitarium is thoroughly examined by the Medical Director. A careful record is kept of each patient's condition, including weight, blood, urine and sputum analyses, and frequent re-examination is made from time to time. Special regulations in regard to diet, exercise, hygiene, medical treatment, etc., are laid down for each patient. Treatment of the nose, throat and respiratory tract by the most improved methods and apparatus are administered to the patient daily. Massage and baths are given by trained male and female assistants, when allowable or necessary. Nothing that can tend to build up the vitality and resistance of patients is neglected, but everything that is advised or done is suggested by the needs of each individual case. The only phase of the Sanitarium's treatment of a routine character is the open air living. This is enjoined of every patient.

The accompanying illustrations will give slight idea of the beauty or advantages to be found at the Champlain Open Air Sanitarium. They will serve to show, however, the buildings and especially the open air cottages. Each little cottage is built on a rock foundation with the floor from one to two feet above the ground. They are faced to the southwest and so arranged that when a patient is in them in bed he is practically out-doors but protected absolutely from draught. The doors are six feet by seven, and kept open in all but the stormiest weather. The cottages are delightfully furnished and the mattresses and bed clothing the best that can be provided.

In short, the Champlain Open Air Sanitarium is a modern, up-to-date institution for the treatment of invalids during the summer months. The results obtained during the summer of 1903 prove conclusively that patients with early tuberculosis can get well as quick at this institution as at any other in the country, and at far less cost. The rates vary with the amount of care and medical attention required, but they are extremely low. Board can be obtained as low as seven dollars per week.

The institution can accommodate twenty patients and is conducted on an ethical basis that cannot fail to appeal to every medical man who respects honest, scientific efforts in behalf of a class of patients who fall too often into the hands of the unscrupulous quack.

NEWS, NOTES AND ANNOUNCEMENTS.

NEW YORK ACADEMY OF MEDICINE, at its annual meeting, held Thursday evening, December 17, 1903, elected Dr. W. Gilman Thompson, vice-president; Dr. John H. Huddleston, recording secretary; Dr. Charles Stedman Bull, corresponding secretary, and Dr. Wisner R. Townshend, member of the committee on admissions.

HOW MANY MILES DOES A DANCER TRAVEL AT BALLS?—A French statistician has been studying the value, as a mode of exercise, of the various dances now in vogue and danced at balls and evening entertainments. The instrument used was an accurate pedometer, and the results, as given, are each the means of quite a large number of observations. As set forth in the "Gazette Medicale du Nord," they are as follows:

In a waltz of moderate duration, the dancer travels about 1,000 meters (3,335 feet or ⅝ mile).

In a quadrille of four figures the distance traversed was, as nearly as may be, twice as far as in a waltz, or 2 kilometers—about a mile and a quarter.

A mazourka marked up 900 meters, or about 1,000 yards.

The polka is shorter still, or 820 meters, only 2,650 yards.

At a ball, commencing at 10 o'clock P. M., and winding up at 5 A. M., the tender young miss who would faint at having to walk a mile, yet who "never misses a single dance," takes, we are told, not less than 56,000 steps, and covers a distance in a straight line, of 34,100 yards, or a trifle over 19.4 miles.—*Nat. Druggist.*

LAMOILLE COUNTY MEDICAL SOCIETY.—The Lamoille County Medical Society met at the Randall, Morrisville, Tuesday, January 12, at eleven o'clock, A. M. Following was the programme:

President's Annual Address,
Dr. E. R. Bush, Cambridge.
"Radical Cure of Hernia,"
Dr. W. W. Genge, Hyde Park.
"Small Pox,"
Dr. H. E. Douglass, Morrisville.
Essay, Dr. G. B. Maurice, Waterville.

All the physicians in the County were invited to be present and take part in the discussion, whether members of the Society or not. An interesting meeting was held and the papers were thoroughly enjoyed by those present.

PULMONARY ŒDEMA.—In pulmonary œdema a one-fifth of a grain of strychnine and a one-hundreth of a grain of atropine injected beneath the skin below the clavicle, repeated according to indications, will relieve and save many cases.—*Donovan, Med. Rec.*

RECENT DEATHS.

WATKINS W. GRIFFITHS, M. D., University of Vermont, Burlington, 1895, of Hillsborough Bridge, N. H., died recently at the Margaret Pillsbury Hospital, Concord, N. H., aged 35.

WILLIAM F. LAZELLE, M. D., University of Vermont, Burlington, 1857, of Plainfield, Vt., died at the home of his son in Barre, Vt., January 5, after a protracted illness, aged 68.

HENRY BRONSON, M. D., University of Vermont, Burlington, 1887, of Chicago, died recently.

LEWIS R. BURNS, M. D., Castleton (Vt.) Medical College, 1847, died at his home in Toluca, Ill., December 30, aged 80.

The Vermont Medical Monthly.

A JOURNAL OF REVIEW, REFORM AND PROGRESS IN THE MEDICAL SCIENCES.

H. EDWIN LEWIS, M. D., *Editor.*

FRANK C. LEWIS, M. D., *Business Manager.*

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J. M. French, M. D. *Milford, Mass.*

F. S. Hutchinson, M. D. *Enosburg Falls, Vt.*

Burlington, Vt., January 25, 1904.

EDITORIALS.

DANGER FROM SLEEPING CARS.

The sleeping car as it exists to-day, presents a sanitary problem that is worthy of much more attention than is being given it. They are open to every one, consumptive, or any other dangerous invalid, who can pay the requisite price, and with their heavy draperies, cushions, and bedding, they are veritable store houses for germs and infective material. The poor ventilation of these modern sleeping cars is something words cannot describe and they are invariable overheated. A night spent in one is dangerous in the extreme and almost always leaves one more tired and depressed.

The blankets used in the average sleeping car, are probably not aired as often as seems necessary, in view of their promiscuous use, and it is high time that the proper officials were prompted to more rigorous precautions. A porter told the writer recently that if any suspected passenger occupied a birth, extra steps were taken to cleanse it and air it before any one else was allowed to occupy it. It hardly seems probable that the average porter or Pullman conductor has the requisite powers of observation to detect every dangerous person. Therefore, the same precautions used in extreme cases should be used in every instance to guard against possible failure of porters to recognize suspected individuals. At the end of each run a car should be most carefully cleaned and disinfected. All bedding and draperies should be thoroughly aired and dusted, and what is more, actually fumigated. This could be done at little expense and with much advantage to the traveling public. In some instances these things are done, but it should be a general routine procedure, and the time is coming when the public will insist on it.

At the same time a more effective system of ventilation should be employed in every sleeping car. The average sleeping car is uncomfortable enough under the best circumstances, but when miserable, vitiated, over-heated air is added to over-crowding and the essential inconveniences, the limit of human tolerance is reached.

PNEUMONIA—A GROWING PROBLEM.

Pneumonia presents the greatest problem the medical profession is called upon to battle with. In less than ten years it has swept to the head as the disease annually causing the most deaths. Consumption, the dread destroyer, has been crowded back into second place and, as Osler so aptly says, pneumonia has become "the new Captain of the Men of Death."

Arthur R. Reynolds, M. D., Commissioner of Health, under date of October 24, 1903, writes in the Bulletin of the Health Department of Chicago the following very pointed remarks about pneumonia:

"The community is again facing the beginning of the murderous pneumonia season. Between the last of this month and the close of next May upward of 2100 persons will die of pneumonia in Chicago, while from consump-

tion—the 'Great White Plague,' which is practically monopolizing the attention and the efforts of the laborers in the field of preventive medicine—there will be hardly more than 1300 deaths during the same period.

"Since the beginning of the last great pandemic of influenza, in 1889, there have been 33,861 deaths from pneumonia in this city and 29,980 from consumption—an excess of 11.4 per cent. of pneumonia mortality. During this period, that is, the last thirteen years, 1890-1902, the deaths from pneumonia have increased from an average of 117 in the 100,000 of population during the previous thirteen years, 1877-1889—to 179—an increase of nearly 53 per cent. Corresponding figures for consumption are 171 per 100,000 in the first period and 160 in the second—a decrease of a little more than 6 per cent.

"Millions upon millions of dollars have been and still are being expended in 'the fight against tuberculosis'; leagues and organizations have been established and anti-consumption literature is more voluminous than the literature of any other subject in medicine. But until within the last year or two no attention has been paid to the rapid increase of the ravages of pneumonia.

"As among the first to urge efforts for the restriction of this disease, the commissioner recognizes an obligation to keep up the agitation by pointing out what is sure to occur during the next seven months. He reiterates the appeal which closed his address on this subject, made before the Sixth General Conference of Health Officials of Michigan, Jan. 15, 1903, following his efforts as chairman of the Section on Hygiene and Sanitary Science at the 53rd annual meeting (1902) of the American Medical Association:—

"Meantime it remains for each of us—physician and sanitarian, curer and preventer alike—each in his appointed place, to do what in him lies to restrict the ravages of this, the most murderous modern scourge of civilized peoples. Let the physician instruct his pneumonia families as to the methods of saving other members of the household from falling victims. Let the sanitarian and the health officer push the propaganda of healthful living, the conservation and development of such inherited powers of vital resistance as the individual may possess—that vital resistance which is, after all, the best prophylactic against, not consumption only nor pneumonia only, but against all the preventable diseases.

"The work is not spectacular nor dramatic. It will have no such picturesque phrase as the 'Great White Plague' with which to conjure and arouse sentiment and enthusiasm. There will be no imperial monarch to make it a fashionable fad by becoming the president of an anti-pneumonic league, nor will there be any royal palace set aside as a sanitarium for the treatment of pneumonia.

"But in the end the persistent public educational work that shall restrict pneumonia will, in like measure, restrict all other diseases, and so add to the span of human life."

These remarks are so strong and forceful that they require no comment. But the situation does, and the people of New England can well appreciate the necessity of utilizing every measure that will prevent and decrease the ravages of this terrible disease Until very recently pneumonia has received little attention at the hands of medical investigators, and the present indefinite methods of treatment show how little progress has been made during the last half century That it is a self-limited disease has been the principal argument to justify the common belief in the futility of treatment. But it should be remembered that diphtheria was also so classified only a few years ago, yet to-day it is conquered, and robbed forever of its terrors, by the patient, painstaking studies of Roux, Behring and others. May not history record at an early date a similar tri-

umph over pneumonia? Surely the world waits for such a result and bids god-speed to those whose studies are being directed to this end.

EDITORIAL NOTES and CLIPPINGS.

What Makes a Doctor.—The skill of a physician is in part similar to that of any other man of science. Primarily he should have a mind for detail and exact thinking. The method of exclusion, "It cannot be anything else, so it must be typhoid," or malaria, is the sign of vagueness, and has diminished with the progress of the laboratory spirit. The able diagnostician recognizes each case not by loose obvious symptoms, but by a variety of exact details, often discoverable only on analysis, and peculiar to that disease. Of recent years malaria has been made to cover more ignorance than any other disease, and in former times there were other words, such as the vapors, which cloaked the entire failure of the doctors to form concrete images of physiologic conditions. This exact mind for detail makes the physician on the side of diagnosis. When it comes to acting on his understanding, to removing a condition which he understands, other qualities become requisite. Some of them are traits of mind, such as fertility of invention, resourcefulness in thinking of schemes, but others are traits of character, moral attributes, such as will, sympathy, tact, and infinite patience. No profession in our day has made such progress as the medical, counting surgery as part of it; and its unexampled improvement is part of our progress in science, the field of thought in which the nineteenth century was most notable. In many professions there has been no progress at all, certainly not in law or in the pulpit.—*Collier's Weekly.*

The Proposed Post-Check Currency.—The inconvenience attendant on sending money by mail will be greatly lessened if the post-check currency bill, introduced into Congress by Mr. Gardner of Michigan, becomes a law. The bill contemplates the issue of the present United States $1, $2 and $5 paper currency with blank spaces on which may be written the names of the sender and the payee. So long as these spaces are blank the bills will pass current as do the present greenbacks. A person wishing to send money by mail will affix and cancel a one- or two-cent stamp, and then will write his name and the name and address of the one to whom he wishes to send the money. Then the bill may be placed in an envelope and mailed without more formality or trouble, and the bill becomes payable only to the person named on its face. The recipient can redeem it at any postoffice or bank; after which it is not reissued. A further proposal is to issue fractional currency of denominations of 5, 10, 25 and 50 cents, but this is a separate matter. The whole plan is so delightful in its simplicity that to mention it can only be to commend and to compliment the inventor, Mr. C. W. Post. Of course, it will be impossible to send $1.63 by post-check currency, there being no bill for that amount; but when the proposed bill has become a law, we shall have taken a long step toward the easy transmission of money by mail. It will be seen at once that if bills are issued on this plan there will be a cleaner lot of paper money, and it is especially to be advised for this reason alone. But physicians and all who have to send money by mail will find it a great convenience. Editorial—*Jour. of A. M. A.*

"Many a man is to-day worrying over a case or two of pneumonia, pleurisy, or capillary bronchitis, whose troubles would flit away like mist did he but know enough to put his patient into a jacket of Antiphlogistine."

Medical Summary, Nov., 1902.

MEN AND AFFAIRS.

Dr. W. W. Townsend of Rutland has devised a urethral insufflator that is of the greatest value in the treatment of gonorrhoea in its declining stage, or in the chronic form of this malady commonly spoken of as gleet. It is truly remarkable how soon a discharge from the urethra can be stopped by the intelligent use of this instrument. Those physicians who have used it in their practice are loud in its praises, and it will be found a valuable help in the treatment of a disease that often baffles ordinary methods. Dr. Townsend, by the way, is one of Vermont's younger physicians who is doing excellent work, particularly along the line of genito-urinary surgery. He is a mighty good fellow, and deserves the success he has won.

* * * *

Dr. Henry Janes of Waterbury is one of the strong men of Vermont. During the Civil War, Dr. Janes held many important appointments in the Union army, and after Gettysburg he was in charge of the hospitals in and around the town with over 20,000 wounded. In all over 49,000 sick and wounded passed under his care. Into his private practice, Dr. Janes carried the same attributes that made him so successful as an army surgeon, and during the long years of his private work he has done a great deal of good work. He has been a keen observer, and a thorough student of things as he has found them. Conservatism has characterized his methods, but he has never failed to accept new ideas when they appealed to his judgment and experience. For some years, Dr. Janes has been license censor and has labored faithfully to raise and perfect the requirements for State registration. In his daily life Dr. Janes is a lovable, kindly man, and the place he holds in the affections of those who are brought into intimate contact with him tells better than words how true a friend he is. Such men honor an honorable profession.

* * * *

The rumor is current that the authorities of the Fanny Allen Hospital of Burlington, Vt., are negotiating for the purchase of Sparhawk's Sanitarium on the corner of Bank and St. Paul streets. If this deal is consummated the hospital authorities will convert the sanitarium into a Catholic hispital. The location is an excellent one and the buildings are well adapted for the purpose intended. Burlington certainly needs another hospital, and the success of the institution ought to be apparent from the start.

* * * *

Considerable wonder is being expressed as to whether the Cosgriff-McSweeney malpractice suit will ever come to trial again. A new trial is set for the March term of Chittenden County Court, but several knowing ones claim that the plaintiff knows when he has had enough and will not continue the fight.

* * * *

Dr. H. C. Tinkham, Dean of the Medical Faculty of the University, has gone to Cuba for a two months' vacation.

MEDICAL ABSTRACTS.

Cardiac Tonics in Pneumonia.—In the second Harveian Lecture (*British Medical Journal,* November 28, 1903), D. B. Lees, M. D., F. R. C. P., considers that it is generally advisable to begin the use of heart tonics about the third or fourth day of the disease and that which ought to be given, if at all, somewhat freely.

Of these drugs, strychnine is probably the most useful and should be given hypodermatically.

Atropine by subcutaneous injection is also very serviceable in children, but not so useful

for adults because they suffer much more than children from the dryness of throat and other unpleasant effects of belladonna. In children large doses of this drug will cause chiefly flushing of skin, which is of no importance.

Oxygen by inhalation assists the æratian of blood in the lungs, and thus improves the quality of the blood supplied to the cardiac muscle. It is therefore truly a cardiac tonic. Its use should be begun as soon as cyanosis is definite, and should be continued for five minutes every hour, whether the patient is awake or asleep. It can be given without disturbing him in the least. Oxygen is certainly a most valuable remedy, and ranks with strychnine in the treatment of pneumonia. But neither strychnine nor oxygen, nor both together, will often save life if the right auricle be not relieved. After a bleeding they are powerful remedies; without removal of blood they often fail, and almost necessarily. It is good to maintain the strength of the cardiac muscle; it is still better to diminish its labor. It is best to do both.

Digitalis will not always reduce the frequency of the pulse in pneumonia, especially when the temperature is high. It is most likely to be of service after relief of the right heart, when the fever is moderate and the pulse still remains weak and frequent.

Ammonium carbonate may be given when there is evidence of much secretion in the bronchial tubes.

Alcohol, though called a "stimulant," has not much title to be considered a cardiac tonic. It is essentially a vaso-motor depressant, and as such may help the heart indirectly when the tension is high. There is also sometimes a temporary increase in the strength of the pulse after the administration of a moderate dose, probably due to increased blood supply to the cardiac muscle, through relaxation of coronary arterioles. It is therefore possible that repeated small doses may be of service in pneumonia, but the large doses sometimes advised are likely to do more harm than good. To imagine that brandy can "support" the heart when the right side is becoming paralyzed from overdistension is absurd. In such a case the only satisfactory cardiac tonic is a venesection. —*Med. Review of Reviews.*

The Importance of Hyalin Casts in the Diagnosis and Prognosis of Renal Diseases.—Defendorf, A. R. (*Yale Med. Jour.*, Dec., 1902), says that purely hyalin casts have been found in large percentages in individuals who are apparently healthy and without other evidence of kidney disorder. These percentages increase with the advanced age. This, in the absence of *post-mortem* observations, has led to a more or less general belief that hyalin casts in urine of individuals past 50 are without significance. A series of 48 autopsies in which urine examinations had been made some time previous to death, show that casts were present in 41 cases and chronic nephritis in 46 cases, permitting the inference that hyalin casts in these cases were distinctly an indication of an organic disease of the kidneys. The 5 disease conditions in which hyalin casts exist alone or with finely granular casts are: the atrophic stage of chronic parenchymatous nephritis, chronic interstitial nephritis, chronic diffuse nephritis, senile interstitial nephritis, and chronic passive congestion of the kidneys. The prognosis of these conditions, with the exception of passive congestion, depends as much upon the general clinical condition of the patient, especially in reference to cardiac and vascular disease, as upon the character of the kidney lesion.—*International Medical Magazine*, March, 1903.

Should Fever be Treated.—This is an important subject, involving fundamental principles in treatment, and for this reason we present here an abstract from an address recently

delivered by Dr. Beverley Robinson. It will be seen that his views fully coincide with those frequently expressed in the *Archives*. After stating that mild degrees of fever ought best be let alone, he asks what should be done if the fever reaches a relatively high degree and is more or less continuous? and whether it is wisdom to allow it to follow its course without interference? And this latter he answers thus-wise: "Usually, we should reply No. Mild antipyretics should be used in moderate doses, and this done because of the known possible bad effects produced upon living structures by prolonged rise of temperature, either of a functional or organic nature. Whenever the temperature reaches a very high degree, then the indication becomes imperative to treat it and to treat it vigorously; for in the latter case death itself may be the immediate or remote result of a conduct of pure expectancy. And even though death may not follow, very serious impairments of the functions of nerves and muscles may be the outcome, which is not only painful and threatening for a while, but may be lasting as to its expression. Finally, we know high and prolonged temperatures are almost inseparably connected with parenchymatous changes, both of muscles and nerves, and which lead to or occasion directly disability of organs which much time only can remove, and which in the graver instances give rise to permanent morbid changes of organs and tissues."—*Merck's Archives.*

STRAY THOUGHTS.

It is not of lofty or heroic deeds that the enduring pattern of character is woven, but rather of the seemingly small things of life: little unheralded acts of helpfulness, slight self-denials that bar against selfishness, conscientious attention to trifling details of duty, standing firm to the right in spite of banter and contempt,—really the most difficult thing for young or old to withstand,—adherence to scrupulous honesty in word and deed, even in what others consider of no import, sticking to principle, though one may be called "old-fashioned," "unprogressive," or "puritanical"; these are the golden strands which, woven into the fabric of daily living, make men and women invincible.—*Success.*

* * * *

So many gods, so many creeds,
So many paths that wind and wind,
While just the art of being kind
Is all the sad world needs.

—*Ella Wheeler Wilcox.*

* * * *

Sow an act, and you reap a habit; sow a habit, and you reap a character; sow a character, and you reap a destiny.—*G. D. Boardman.*

* * * *

WHEN SHADOWS FALL.

When you are sad and all the world
Goes coldly by,
And in your heart you only wish
To die,
Then let me come and as you weep,
My tears will flow,
My words may fail, but I will try
To share thy woe.

I know what 'tis to love and lose,
To lose my own,
The world once left me to my pain,
Alone.
So do not send me from your side,
I fain would stay,
And comfort you till Time has dried
Thy tears away.

—L.

NEWER REMEDIES.

I refer to the Medicated Uterine Wafer of Micajah & Co., that is giving such satisfactory results in general practice.

These wafers may be safely given to patients living at a distance, to be inserted every second or third night after copious injections of hot water.

The tonic effect is marked, and as the wafers are self-sustaining, no tampon is necessary.

SANMETTO IN ENLARGED PROSTATE, WITH SUPPRESSION OF URINE, AND CHRONIC INFLAMMATION OF BLADDER.—I have used Sanmetto in enlargement of the prostate, suppression of urine and chronic inflammation of the bladder, and can recommend its use for any and all of the troubles of the urinary tract.

J. A. WILSON, M. D.

Columbus, Ohio.

SANMETTO IN PROSTATITIS, URETHRITIS, CYSTITIS.—I have used Sanmetto extensively in my practice for some years, and in well chosen cases have always gotten good results. I look upon it as a most valuable remedy in prostatitis, urethritis, cystitis, and in fact all inflammatory conditions of the genito-urinary tract.

W. J. CHITTOCK, M. D.

Jackson, Mich.

COUGH AND RESTLESSNESS IN PNEUMONIA.—Dr. W. J. Parker truthfully states in the January *Medical World* that "The season for pneumonia is here," and it may be of interest to our readers to know that he has found an excellent remedy for the cough and restlessness which are such distressing symptoms of this dreadful malady in antikamnia and heroin tablets. Each of these tablets contain five grains of antikamnia and one-twelfth grain heroin hydrochloride, and the dosage is one tablet every two or three hours according to the exigencies of the case, or at the discretion of the attending physician. We may also add that Professor Uriel S. Boone of the College of Physicians and Surgeons, St. Louis, also reports most satisfactory results with this remedy in pneumonia, bronchitis and la grippe, particularly in relieving the accompanying spasmodic coughs and muscular pain.

SANMETTO IN CHRONIC CYSTITIS, CHRONIC URETHRITIS AND PRE-SENILE IMPOTENCE.—*To whom it may concern:* This is to certify that I have used Sanmetto extensively in my practice and can recommend it in chronic cystitis and chronic urethritis. I have used it in pre-senile impotence with remarkable and brilliant results. I regard the remedy, after making crucial clinical tests in the above named diseases, as the *sine qua non* of all the remedies in these diseases.

THOMAS M. BROWN, M. D.

Ockland City, Ind.

Dr. Colin Campbell, Southport, Eng., L. C. R. P., M. C. R. S., writes in the *Medical Press and Circular*, London, Eng., Oct. 7, 1903:—

PLEURISY.—Dr. B. was under my care last winter suffering from a pulmonary cavity. He had had previously two or three intercurrent attacks of pleurisy, which I again found present on Dec. 7th, 1902, accompanied by severe pain over the cavity, and a temperature of 103°. His previous attacks had occurred at his home, where careful poulticing was practicable, but in apartments this was unsatisfactory, and so it occurred to me to try Antiphlogistine.

The material was warmed and "trowelled" on for many inches around the pleuritic centre, then covered with non-absorbent lint and Jaconet.

The result was remarkable; the pain disappeared within an hour, and the high temperature within two days.

Many advantages over poulticing were noticed by the patient; facility of application, no unendurable heat, rapid relief from pain, its adhesiveness rendered movement possible without tight bandaging or the alternative sudden influx of cold air which follows the separation of a poultice from the skin

* * * *

Chilblains to many will appear a trifling matter, but as one whose school days in winter were rendered miserable by them, I can assert that they are most maddening. Last winter my daughter, aged 11, suffered from them severely. Each time Antiphlogistine was applied, the redness and intolerable itching disappeared in a night. I have tried remedies innumerable with no such result.

Glyco-Thymoline in Phthisis and Tubercular Invasion of the Submaxillary and Cervical Glands.—It seems to have been thoroughly established that in most cases tubercular infection has been through the mouth and naso-pharynx. This being the case a protection of these parts from invasion is of the first consequence. In a recent note on this subject Professor Arnulphy, of Paris, says that in addition to other methods to protect those persons as physicians, relatives, nurses, etc., who are compelled to come in contact with consumptive patients, the frequent daily use of Glyco-Thermoline as a mouth, throat, and nasal wash will ensure a degree of immunity from infection that reduces the danger to a minimum. To those already suffering from the disease, Glyco-Thermoline has proved of great value as a means of keeping the mouth, nose and cervical glands in an aseptic condition with a marked alleviation of cough and irritation. The action of the solution of Glyco-Thymoline on the mucous membranes is soothing and distinctly exosmotic, increasing the capillary circulation.—*N. Y. Med. Jour.*, Jan. 9th, 1904.

CALCIUM IODIZED ("CALCIDIN")

ITS THERAPEUTIC USE IN COUGHS, COLDS, ETC.

IN SNUFFLES.

To young infants with the "snuffles," whether due to post-nasal adenoids, hypertrophied turbinates or inherited syphilis, given in doses ranging from ½ to ⅓ of a grain three or four times a day as indicated, it will be found to quickly relieve, and with removal of cause, will soon effect a cure. Older children with night cough, due either to catarrh of the naso-pharynx, or to clogging of the bronchi in subacute or chronic bronchitis, doses of one-third to one grain, repeated every fifteen minutes for a few doses during the paroxysms, will often give relief when everything else fails. Through its alterative action it favorably influences these cases when given continuously three or four times a day.

IN LA GRIPPE.

In those cases after grippal attacks, where the bronchial glands are enlarged and there is found upon examination of the throat, a tough, grayish-yellow secretion adhering closely to the folds of the soft palate, and to the sides of the pharynx, extending into the vault, and in which there is a disagreeable, dry, rasping cough, "Calcium Iodized" ("Calcidin") in doses of one or two grains, dissolved in water, and given every three or four hours, will act promptly and afford relief sooner than any other remedy yet tried. It is well, also, in these cases to use locally a spray of either Seiler's or Dobell's solution. Try it in good dosage as a prophylactic in exposed cases. It will surprise you.

IN PAROXYSMS.

In those cases of heart disease in which there are nightly paroxysms of an intense feeling

of oppression in the chest, with spasm of the bronchial tubes, suffocation, dyspnea, and an incessant dry, metallic cough, one grain of "Calcium Iodized" every fifteen minutes usually relieves by the time the third dose is taken. The remedy does not influence either favorably the heart lesion.

TUBERCULAR COUGH.

In the night coughs of tuberculosis it is an invaluable remedy; two or three one-grain doses repeated at half-hour intervals just before bed-hour will usually cause the patient to rest well until between three or four o'clock in the morning, when a few more doses repeated in the same manner will bring him comfortably through the night. It lessens hectic fever, and prevents night-sweats.

If you wish to try this valuable remedy, send for sample to the Abbott Alkaloidal Co., Chicago, Ill.

RAILWAY SANITATION.—The Board of Health of Texas has issued the following rules:

Each passenger coach or sleeping car used for passengers must be provided with one cuspidor for each seat or every two chairs.. Each cuspidore must contain not less than six ounces of a disinfectant solution approved by this department. The cuspidors to be emptied, washed in a similar solution, and replenished each trip or every twenty-four hours.

Public buildings must be provided with sufficient number of cuspidors, or not less than one in each room or hall, treated in a like manner and emptied, washed and replenished daily.

The floors of cars and public buildings must be sprinkled with a similar solution before each sweeping.

Sweeping and dusting of cars are prohibited in transit, except that floors of cars may be swept at division terminals of meal stations where passengers will be given an opportunity to leave the cars during that time. Seats, windows and walls of cars must be wiped off with a cloth or sponge and not dusted in transit.

All sleeping cars must be disinfected by fumigation in a manner approved by this department at the end of each round trip in the State of Texas where sleeping cars do not leave the State.

All sleeping cars passing through or coming into the State of Texas must be disinfected in the same manner each trip at some point in the State approved by this department. All carpets, curtains, blankets and bedding, except linen, to be disinfected with cars.

Day coaches used for passengers must be fumigated, whenever the necessity exists, at some point in this State acceptable to this department. If a car becomes infected by being occupied by a person having a contagious disease it must be disinfected immediately at end of run.

Ice, which is used in water coolers in cars, must not be dumped on the floors, sidewalks and car platforms where people have trod and expectorated, and then picked up by unclean hands and put into the drinking water. It should be washed and handled with ice tongs.

Passengers, patrons, employes or others must be prohibited from washing their teeth over or expectorating in basins in sleeping cars, passenger coaches or public buildings which are used for bathing the face and hands. Large cuspidors must be provided for such purposes.

HORSE-MEAT AS FOOD.—There is a growing suspicion that in this country there is an increasing consumption of horse-meat. The popular notion that dogs are made up into sausages has little foundation in fact. The prices which broken down horses bring are hardly justified by the returns obtained from the skin, hoofs, and the products of the ren-

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dering tank. In the absence of any adequate food inspection in this country, it is more than probable that the slaughter and sale of horse-meat is a lucrative business. It would readily enter into the production of many meat foods, such as sausage and canned meats.

It is to be regretted that the law does not recognize the horse as a possible source of meat supply. Many animals have to be destroyed because of lameness or accidents, and are in no way diseased. There is no reason why the horse should not furnish a good quality of meat. His food is cleanly, he is a pure vegetable feeder, and his general habits are far ahead of swine. Most European countries recognize the value of horse-flesh as food. That the public may be protected against fraud, butchers that sell horse-meat are prohibited dealing in the flesh of other animals. This recognition of horse-flesh as food enables the government to keep under proper inspection places where horses are slaughtered, and to prevent the sale of diseased meat.

It would be interesting to know what proportion of our canned meats, sausage, etc., contained horse-flesh. This can be readily determined by the precipitation method of Uhlenhuth. The latter gives us an infallible method of recognizing the flesh of various animals no matter what the admixture.—*Medical Mirror.*

Glyco-Heroin (Smith) Compared with Coedine and Morphine.—Aside from the after-effects of morphine, such as nausea, general lassitude, vomiting and vertigo, it has the disadvantage that the patient becomes readily addicted to it and chronic morphinomania occurs, especially in neurotic persons.

Coedine in its physiologic action resembles narcotine, though the narcotic stage is not so much pronounced. When administered in small doses intestinal peristalsis is promoted, while in large doses it produces diarrhea in consequence of complete relaxation of the intestinal muscles, owing to paralysis of the nerve centers governing the intestines.

The sedative action of coedine is unreliable.

BOOK REVIEW.

The American Year-Book of Medicine and Surgery for 1904.—A Yearly Digest of Scientific Progress and Authoritative Opinion in all branches of Medicine and Surgery, drawn from journals, monographs, and text-books of the leading American and foreign authors and investigators. Arranged, with critical editorial comments, by eminent American specialists, under the editorial charge of George M. Gould, A. M., M. D. In two volumes. Volume I, including General Medicine. Octavo, 673 pages, fully illustrated; Volume II, General Surgery. Octavo, 680 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Co., 1904. Per volume: Cloth, $3.00 net; Half Morocco, $3.75 net.

The American Year-Book of Medicine and Surgery continues to maintain its high place among works of its class. Indeed, the issue of 1904, now before us, if anything, is even better than the excellent issues of previous years. Such a distinguished corps of collaborators which the editor, Dr. George M. Gould, has enlisted as his assistants is sufficient guarantee that the essential points of progress are brought out, and the collaborator's notes and commentations are excellent. In the illustrative feature the 1904 issue fully maintains its reputation, there being fourteen full-page insert plates, besides a number of excellent text-cuts. We pronounce Saunders' Year-Book for 1904 the best work of its kind on the market, as it has always been. No physician can afford to be without this valuable reference work.

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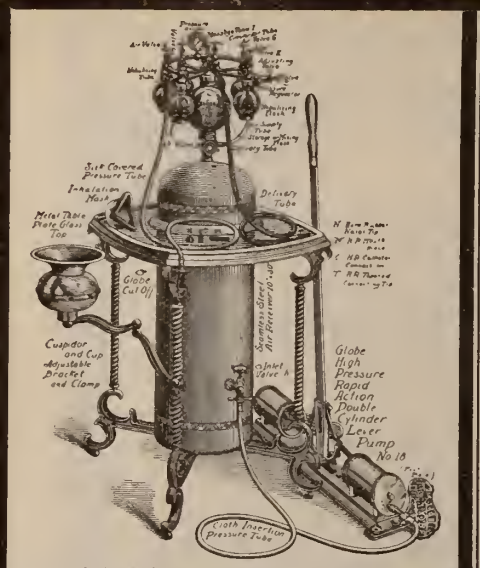

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Vol. x. No. 2. Whole No. 110. | Burlington, Vt., Feb. 25, 1904. | $1 per year. Single copies, 15 cts.

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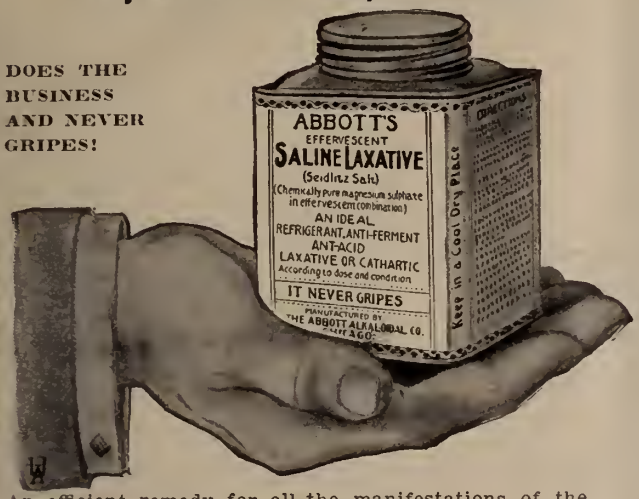

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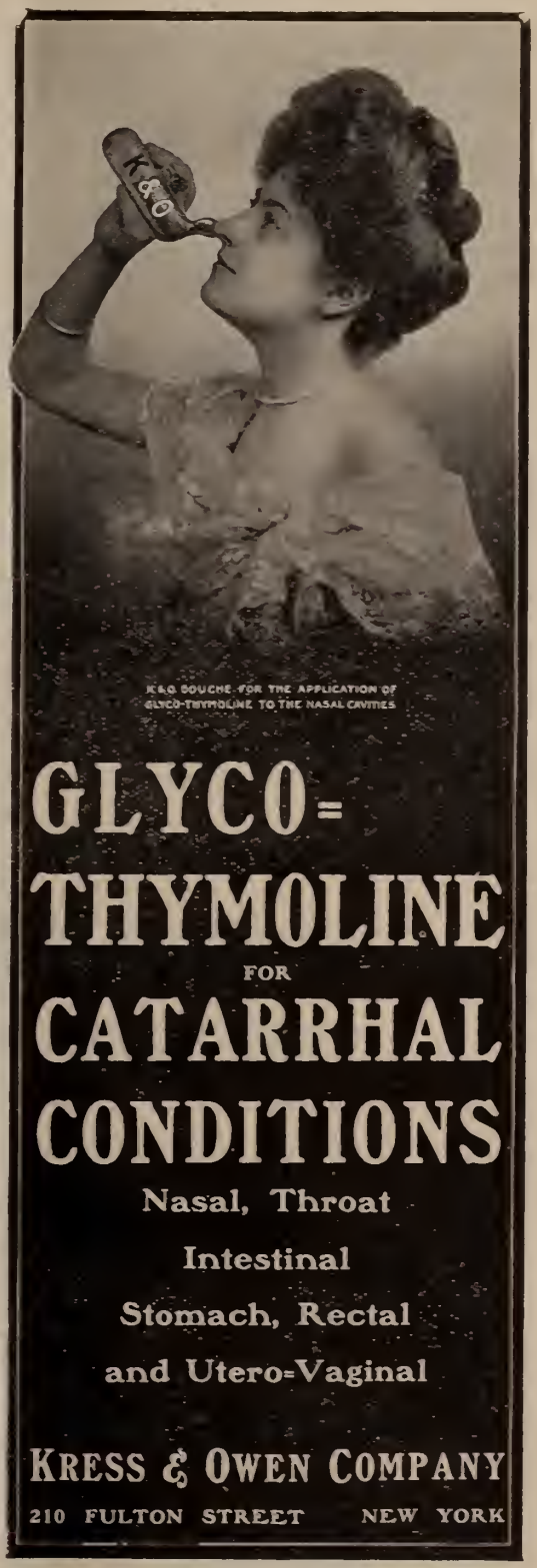

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The Vermont Medical Monthly

Vol. X. February 25, 1904. No. 2.

ORIGINAL ARTICLES.

SYMPOSIUM ON PNEUMONIA.*

Etiology and Pathology

By Frank C. Phelps, M. D., Vergennes.

Mr. President and Members of the Vermont Medical Association:

In attempting the opening of this symposium on pneumonia, I shall take it for granted that most of you prefer to have a large part of the time taken up with treatment, consequently I shall endeavor to be brief and shall not attempt to offer you anything new.

Lobar or croupous pneumonia is described as being an acute, infectious, febrile disease characterized by inflammation of the lungs and toxaemia, while broncho or lobular pneumonia is an acute interstitial inflammation of the small terminal bronchi and the air vesicles which immediately surround them.

While these two forms of pneumonia are similar in some respects, in others they are vastly different. Under the head of etiology might first be mentioned the age and sex. With the lobar form the young adult, I believe, furnishes us the larger number of our cases, although we also find many in the first years of life and in the aged, amongst whom the mortality is large. The lobular variety is more commonly seen in the infant and old person than in the young adult.

As regards sex, males of all ages are much more often attacked than females, no doubt due to the greater exposure made necessary from occupation, habits, etc. The use and abuse of alcohol is given as being responsible for many of our pneumonia cases. Most of us can recall cases, caused from exposure during a debauch, and now that Vermont has become a license State, it remains to be seen whether or not we shall have an increase in the number of cases of this disease. The colored race and foreigners are more susceptible to the disease and also suffer a larger mortality than do those born in this country.

As regards location, we find more cases in the cities and larger towns than in the country, very likely for the reason that the inhabitants breathe less pure air, keep later hours, and drink more liquor.

Trauma of some sort, or the presence of a foreign body in the air passages, the inhalation of poisonous gases, anesthetics, etc., are much more apt to bring on the broncho or capiliary form than the lobar variety. In Vermont, the months of March and April can, I think, produce more cases of pneumonia than all the others combined, as the melting snow and frequent changes in our New England weather are very severe.

That pneumonia is infectious is easily proven by its frequent attacks on several members of the same family successively, or by its epidemic form in boarding schools, penitentiaries and tenement houses. Unlike most infectious diseases, however, one attack of pneumonia, instead of immunizing, rather predisposes the patient to another attack. The presence of asthma or emphysema seems to confer some degree of immunity, however. Poverty and bad hygienic surroundings predis-

* Read at the 90th Annual Meeting of the Vermont State Medical Society.

pose to attacks of pneumonia, and right here let me say that I believe many of our cases can be directly traceable to the habit of living and particularly sleeping in ill-ventilated and super-heated rooms, and this habit is by no means confined to the poor and ignorant alone, as many of the better class need much education in the line of pure air.

We frequently find pneumonia complicating or following other acute diseases. Lobar pneumonia frequently follows la grippe or measles, while broncho pneumonia is more apt to follow pertussis or occur as an extension of a simple bronchitis.

The supposedly specific cause of pneumonia is a bacillus. In the lobar form it is the micrococcus lanceolatus, also known as the pneumococcus or diplococcus of Frankel. This is an elliptical coccus, occurring in pairs, enclosed in a capsule, which may be found in pneumonic sputum and often in other organs of the body aside from the lungs, especially in fatal cases.

Broncho pneumonia is divided into the primary and secondary form, the primary being essentially a disease of infants with a rod-shaped encapsulated baccilus pneumoniae of Friedlander being present. The secondary either follows some other acute infection or occurs after the inhalation of poisonous gases or the presence of a foreign body, and in this secondary form the streptococa are usually present. Many other organisms and varieties of bacilli are frequently found in both forms of pneumonia.

The pathology of lobar pneumonia must necessarily be described under its three stages—engorgement, red hepatization and gray hepatization. In the engorgement stage, which rarely lasts more than twenty-four hours, the lung tissue is dense, firm and dark red, due to the intense hyper-aluvia. Cut sections of the lung exude blood and serum, the air cells still retain some air, crepitate, and the lung will float on water. Under the microscope it is seen that the capillaries are distended, the alreolar epithelium is swelled and the alreoli contain free epithelium and red and white blood cells.

In the stage of red hepatization the consolidation is complete, the lung is deep red and swelled so that it often bears the marks of the ribs on its surface. The cut surface no longer oozes blood, but is dry and granular and the lung is very friable. Crepitation is absent and the lung sinks in water. The microscope reveals the alreoli filled with coagulated fibrin, red and white blood cells and granular epithelium.

In the gray hepatization stage the cut surface of the lung is again moist and of a gray color, the granules are disappearing, but the lung is more friable than before. The contents of the alreoli become liquified and milky in to be sometimes called that of purulent infil- appearance, resembling pus, causing this stage tration. The exudate in the alreoli is gradually absorbed, comparatively very little being thrown off by expectoration. Muller claims to have discovered that resolution is brought about by the action of a ferment found in the hepatized area, produced by the large number of leucocytes present, which creates an acid reaction, digesting, so to speak, the exudate in the air cells. Rapid resolution is the rule, but in some cases it is delayed, may be extremely slow or the lung may never return to its normal condition—a gradual breaking down or a chronic fibrinous condition, a fertile soil for the tuberculous bacilli, may result.

The pathology of broncho pneumonia presents all the appearances of a general catarrhal bronchitis, together with an interstitial inflammation. The walls of the bronchioles are infiltrated, thickened and filled with a purulent secretion. The air sacs contain serum, fibrin, pus, desquamated epithelium and red blood cells. These diseased foci may be scattered throughout one or several lobes of the lungs, the intervening tissue being normal or nearly

so. The lesion ends either by a rapid resolution, a prolonged resolution, like lobar pneumonia inviting tubercular infection, gangrene, or abscess of the lung may occur, or death from asphyxiation.

CLINICAL HISTORY AND DIAGNOSIS OF PNEUMONIA.

By O. C. Baker, M. D., Brandon.

Pneumonia is a disease which occurs in all parts of the world, but with various frequency. That it is an infectious disease is a well established fact. Its infectious nature was inferred long before the discovery of the micro-organisms which have been found to be of etiological importance, by the frequent typical course, by the independence of the general symptoms and pulmonary lesions, by the occurrence of epidemics and by its outbreak in persons soon after their exposure to another case. Pneumonia has been divided into several varieties. Perhaps the divisions made by most writers are acute pneumonia, secondary, catarrhal or lobular pneumonia.

In acute lobular pneumonia, which is the kind most frequently met with in practice and in which the symptoms are most marked, the disease runs a nearly uniform course. In a large percentage of cases, for a day or two before the sudden bursting forth of the disease, there is a mild nasal or pharyngeal catarrh or general discomfort. The first real marked symptom of the affection is a chill, generally sudden, mild or severe irrespective of the course which the disease is to take.

In this climate, where malarial fever is almost unknown, a severe chill is nearly always indicative of pneumonia, and in my opinion is the most to be relied upon of any of the early symptoms before the pathological changes have taken place in the lungs, so that the diagnosis can be confirmed by physical examination of the chest. The chill is immediately followed by a rise in temperature, which is usually very marked within a few hours. Pain is usually complained of, referred to the nipple of the affected side, but may be referred to the back, axillary region or abdomen. Dyspnoea soon supervenes, due to engorgement of the lungs with frothy bloody fluid, after which coarse and fine moist rales make their appearance.

As the solidification of the lung progresses the pain frequently lessens, but the fever and dyspnoea continue. There is but little appetite, and thirst which is only slight at first, considerably increases until the crisis occurs. The face is usually flushed and the expression anxious. The respiration is superficial, labored, and often interrupted by a distressing short cough. The expectoration is scanty, tough, and of a rusty color. The patient is restless, perhaps delirious, and suffers from headache, backache, and weakness.

The pulse throughout is full and strong and in the beginning there is a marked pulsation of the carotids. Resolution takes place commonly between the fifth and eighth days, rarely earlier, but occasionally later. The temperature then falls several degrees, either suddenly, by crises or gradually by lysis. The dyspnoea diminishes, the cough is less distressing, the expectoration is more abundant, and the general symptoms improve, although the signs of solidification continue as a rule for a number of days afterwards.

The temperature rises rapidly after the chill and within twenty-four hours is generally 104° or 105° F. It usually remains elevated until the critical fall, which oftenest occurs on the seventh day or earlier. Occasionally a pseudo crisis occurs on the third or fourth day when the temperature may approach nearly the normal point, but quickly returns to the maximum again. In a certain number of cases the temperature falls gradually to a normal, covering

a few days instead of in a few hours. Persistence of high temperature beyond the time for it to fall is indicative of some complication which should be earnestly sought for.

Pneumonia is a disease with the most distinct crisis of any we meet. The frequency of respirations, usually from 30 to 40 per minute, going even higher in children or weak and nervous patients or in cases tending to a fatal termination.

The pulse is usually from 100 to 120 and may be higher in children, and in cases which end fatally. A fall of 40 or 50 beats a minute is not uncommon at the crisis. In the early stages of the disease the pulse is full and bounding, but as resolution approaches, it is soft, compressable, and perhaps dicroctic.

The cerebral symptoms are especially marked in children and in alcoholic persons. In children convulsions frequently occur as an initial symptom and delirium later in the disease. Mild delirium occurs in a large percentage of cases in elderly people or in persons of a nervous temperament.

Physical Examination.—The patient is found lying on the back or affected side, according as the pain makes it necessary to limit the movements of the chest. The body is bent forward, the head raised and the nostrils are expanded with each inspiration. There is a bright red flush on each cheek, while the lips and nose are dusky and the rest of the skin is pale. Occasionally there is a slight degree of jaundice. As a rule profuse sweating occurs at various intervals, frequently accompanied with sudamina. Herpes of the lips or about the nose is present in about 30 per cent. of the cases. The chest shows a limitation of movement on the affected side. Palpation gives an increase in the vocal fremitus unless there is also a pleuritic effusion. In the early stages friction may often be felt. In the early stage the percussion note may be increased resonance, but as hepatization occurs it is replaced by dullness, increasing almost to flatness when fully hepatized. As resolution occurs the dullness gradually disappears. On ausculation in the stage of congestion subcrepitant rales are to be heard, caused by viscid exudation in the alveoli, and frequently accompanied by coarse moist rales produced in the bronchi. As hepatization progresses the rales disappear and the breathing becomes tubular, or ceases in case the larger bronchi are obstructed. When resolution takes place there is a return of the fine moist rales,—crepitus redux, and coarser rales follow. In central pneumonia, the transmission of sounds is interfered with, by the overlying aerated lung. On auscultation of the heart, the second pulmonic sound is accentuated, and on palpation and percussion in the region of the liver and spleen these organs are found frequently enlarged. The sputum of pneumonia is usually characteristic of the disease. It is sometimes scanty and occasionally wholly absent. At the outset it is streaked with blood, and is so viscid as to adhere to the side of the inverted cup. During hepatization it is more abundant, gelatinous, of a reddish yellow color from the presence of decomposed blood pigment, hence called rusty. In severe cases when there is abundant hemorrhage, the sputa is liquid and of a dark brown color resembling prune-juice. During resolution they are thick and yellow, muco-purulent in character. In certain cases the sputum is green.

The urine is scanty, highly colored and concentrated. The chlorides become very much diminished early in the attack, but return after the crisis. Albumin is found in the urine in small amounts in about one-third of the cases and is associated with the presence of hyaline casts. Both albumin and casts usually disappear in the course of a few days after convalescence.

All cases of pneumonia do not run the same typical course and the genuine sthenic pneu-

monia has been long distinguished from the atypical, asthenic, or typhoid pneumonia. The variations in the course of the disease may be due in part at least to differences in etiology.

The more common typical variety, being caused by the diplococcus of pneumonia, while those pursuing an atypical course or occurring as complications of other diseases, as typhoid fever, malaria or nephritis, may result from the bacilli of typhoid fever or influenza, or from staphylococci or streptococci, either alone or in combination with the diplococcus. The typical course of genuine pneumonia also varies frequently in consequence of the age and general condition of the patient, and the presence of complicating diseases. In children in whom lobar pneumonia is more common than has been generally supposed there are rarely typical consolidation and physical signs. The initial chill is often absent, perhaps replaced by a convulsion. In elderly people, on the other hand, the chill and characteristic signs of hepatization may be absent, but the disease is often fatal. In alcoholic subjects the symptoms and signs referable to the chest may be so inconspicuous that the pneumonia may be overlooked, delirium being the most striking feature in the case. In typhoid fever the course of pneumonia is greatly modified by the toxic condition due to the typhoid bacillus. The term typhoid pneumonia indicates merely the association of low muttering delirium, extreme prostration, a dusky, perhaps yellow skin and diarrhoea, conditions which occur in varieties of pneumonia independent of typhoid fever and of the typhoid bacillus. In rare instances the symptoms of pneumonia may disappear in two or three days, and is then called congestion of the lungs or ephemeral pneumonia. Apical and central pneumonias are discriminated. In the former the infiltration begins in the upper lobe and frequently pursues a severe course, associated with severe cerebral symptoms giving rise to the term cerebral pneumonia.

In central pneumonia, although the symptoms indicate an inflammation of the lung, the physical signs with the exception of localized, apparently deep seated, bronchophony and bronchial breathing, are absent.

In wandering pneumonia, which sometimes though not necessarily, is preceded by facial erysipelas, one portion of the lung after another is continuously involved. The discovery of streptococci in the exudation in certain of these cases suggests that the peculiar course may be due to this variety of bacterial infection.

CATARRHAL PNEUMONA.

Synonyms—Lobular pneumonia, vescular pneumonia, disseminated pneumonia, bronchoalveolar catarrh, peribronchitis, capillary bronchitis, suffocative catarrh.

Symptoms.—In some cases the general symptoms are so slight that the patient walks around attending to his usual affairs, or, if a child, plays about with but slight complaint except of cough, or as is likely to be said of cold.

This is not infrequent at the beginning of an attack of influenza, which may afterward prove quite severe if unattended to, and it is the rule in the early stages of tuberculosis. The mistake of looking upon the case as one of simple bronchitis may thus be easily made. Elevation of the temperature, often surprisingly great, will frequently be found. There may be slight pain in the breast, especially if there be pleural involvement, and this is more common in influenza and tuberculosis than in other varieties of this affection. In other cases the symptoms though rarely, except in influenza, sudden in onset become quite severe from the first. There is prostration with high fever, rapid pulse, headache, restlessness, pain in the chest, and respiratory distress with quickened breathing, cough, and usually expectoration, though in children in whom the

morbid process ensues as a sequel of some infectious fever, the cough is at first harsh and dry. In infants and young children there is often difficulty or even impossibility of expectoration, so that the moist sounds of air passing through the mucus retained in the windpipe and bronchi may be audible even to the casual observer. There is often considerable difficulty in respiration, sometimes approaching suffocation, thus giving rise to the common synonym of capillary bronchitis or suffocative catarrh.

The matter expectorated is not blood-stained as a rule, but varies much in its characteristics. It is usually mucoid, sometimes and especially in tuberculosis, muco-purulent. In influenza it often resembles boiled sage sprinkled with coal dust. This dark sputa is quite characteristic of the disease. The appetite is impaired, the tongue coated, the lips red and dry at first, afterward cyanotic. The skin is dry and hot.

Physical examination at first, especially in children, may fail to reveal dullness or even blowing breathing, but there will be discovered scattered over both lungs and often more frequent and more extensive at the bases, showers of fine subcrepitant rales. Sibilant bronchi may likewise be heard. In the course of a day or two, sometimes later, scattered areas of dullness associated with bronchial or vesicular-bronchial breathing, and moist rales, and sometimes with absence of breath sounds indicating atelectasis, are discovered. Of these some are constant and others appear and disappear. If the areas are large, bronchial breathing is heard closely resembling that of lobular pneumonia. Bronchophony may be present. An apex pleuritic friction is heard in some cases. As the case progresses there develops characteristic cracking and the liquid rales indicative of softening.

As these signs develop, indicating extension of the local morbid process, the symptoms become correspondingly severe. Dyspnoea increases and the respiration rate rises, with children reaching 60 or 70, with adults rarely exceeding 50, and usually remaining below that number.

Cyanosis now becomes manifest. There may be suprasternal and infrasternal retraction. At first in severe cases, the children exhibit great restlessness and anxiety, obtunding of sensation takes place, drowsiness increases, and, while the breath becomes more gasping, the efforts to obtain air diminish. The heart becomes weaker, the right ventricle is evidently distended, the pulse small, feeble and fluttering, and death may occur from cardiac paralysis or from exhaustion. Sometimes there is delirium cephalagia, retraction of the head, and tenderness of the scalp and neck, apparently indicating meningeal complications and convulsions may occur. Occasionally there is constant or intermittent delirium with jactitation, and this seems to be rather toxaemic than due to cerebral inflammation.

Recovery may take place even in apparently desperate cases, and the symptom changes may be as sudden as in lobar pneumonia, though usually the process is gradual but rapid.

The duration varies from about ten days to three weeks. In cases delayed beyond this the suspicion of tuberculosis or localized empyema becomes strong. Some cases, however, which are not clearly tuberculosis, run a remittent or sub-acute course, and others gradually take a chronic type.

Diagnosis.—The onset of an attack of pneumonia is usually so typical, and the development of the physical signs so marked, that but little difficulty is encountered in the diagnosis of most cases. When, however, the localization is central the physical signs are often so obscured by the overlying lung that the diagnosis is to be inferred almost wholly from the symptoms and from the exclusion of other causes of thoracic disease. If the patient is seen first at a late stage the diseased lung may

be covered with a serous or purulent exudation and the signs of consolidation be concealed until the removal of the pleuritic exudation permits them to be transmitted to the ear. In cases that admit of doubt in diagnosis, the blood should be examined, which almost invariably shows a leukocytosis which as a rule increases as the disease advances. It is as a rule higher in severe cases than in mild ones.

In certain cases hepatization is delayed, especially in children and old people or from persons suffering from chronic disease. The sudden onset of cerebral symptoms in children and delirium tremens in persons addicted to alcohol, when associated with fever and rapid respiration, invariably calls for a physical examination of the chest. Herpes about the lips is of significance in the diagnosis of doubtful cases. The diagnosis between pneumonia and plural effusion is sometimes difficult. This is particularly the case in those cases of pleural effusion in which bronchial breathing and bronchophony are decided physical phenomena. The onset of pleurisy, however, is not characterized by symptoms of the same intensity as attended the onset of pneumonia. The chill is not pronounced, frequently mere chilliness, temperature usually not more than 102°. The cough is less and expectoration slight and lacks the rustiness of pneumonia. When there is much effusion into the pleura the percussion note is flat and the adjacent organs are displaced. On auscultation the breath sounds and voice sounds in pleural effusion are usually diminished in intensity or possess a very distant bronchial character. In pneumonia bronchophony and bronchial character are very marked. To distinguish between pneumonia and pneumonic phthisis is sometimes difficult. In the latter affection, however, the more gradual onset, then tendency of the fever to be remittent in type and attended with repeated chills, or chilliness, the profuse sweats, the rapid emaciation and abundant expectoration, which as the lung breaks down shows the presence of bacilli, the location of the lesion at the apex and the absence of herpes, all serve to differentiate the condition from pneumonia, of course the diagnosis as the disease advances becomes apparent.

The frequent association of croupous pneumonia with marked nervous symptoms at times causes confusion between this disease and meningitis, but repeated examinations of the lungs cannot fail to settle the diagnosis.

The differential diagnosis between lobar and catarrhal pneumonia as a rule can be made, although in a small percentage of cases it is well nigh impossible. In the catarrhal form the onset is more gradual, the expectoration lacks the rusty character and disease can usually be found in both lungs. The duration of catarrhal pneumonia is prolonged to three or four weeks and terminates by lysis; furthermore it is usually a complication or sequel of some other disease. The differential diagnosis of influenza from pneumonia is not easy, for a case frequently beginning as an influenza easily takes on the catarrhal form of pneumonia so insidiously that unless daily examination of the lungs is made the attending physician will have a fatal case of fully developed pneumonia ere he is aware of it.

Last but not least in differential diagnosis is the discrimination between pneumonia and appendicitis. Dr. Griffith of Philadelphia, in an article in the *Journal of the American Medical Association,* says: "Attention has been recently called in several quarters to the simulation of appendicitis or peritonitis by pulmonary processes, especially pneumonia and pleurisy. The fact that this simulation often occurred has long been known, but is commonly overlooked, and inasmuch as the diagnosis is at times extremely difficult and since operation for appendicitis has been performed when only pneumonia was present, I deem it of importance to report a few cases of this

nature." Several cases are reported in which good surgeons have made a mistake and operated for appendicitis when only some disease of the lungs or plura existed. In view of this fact it is necessary that we be on our guard and such mistakes can hardly occur.

The main safeguard in the diagnosis is to remember the possibility of a thoracic origin for the abdominal symptoms. It will then be generally found that there is some thoracic as well as abdominal pain, or there will be cough even though slight, in children the expiratory grunt or tinged sputa. Above all the respiration will be increased out of all proportion to the abdominal pain and tympany. The abdomen in these cases is described as pseudo-tender. A light touch hurts. Quiet, steady, deep palpation with the flat hand does not increase the pain. Barnard has observed on pressure at the beginning of inspiration there is a yielding of the abdominal wall that is seldom seen in true peritonitis. Repeated examination with care cannot fail to clear up the diagnosis.

THE TREATMENT OF PNEUMONIA.

By A. E. Bailey, M. D., Randolph.

Mr. President and Gentlemen:—Clinically, as well as pathologically, there are three distinct types of pneumonia, each of which requires a separate consideration. First, croupous or lobar pneumonia; second, catarrhal or lobular pneumonia, sometimes designated broncho-pneumonia; third, interstitial pneumonia. In discussing the treatment of pneumonia, I shall speak of the first and second only, believing that interstitial pneumonia can be more appropriately considered under the head of pulmonary phthisis.

Perhaps there is no disease, the treatment of which has been so bitterly and earnestly discussed, as the one now under consideration. It has been the "battle-field of the advocates of heroic measures" on the one hand, and the advocates of "the expectant plan of treatment" on the other. One who has carefully studied the natural history of the disease can place but little reliance on, or attach but little value to any plan of treatment, as regards its curative effects, if it is indiscriminately employed. The natural tendency of the disease, if uncomplicated, is to terminate spontaneously in a crisis between the fifth and sixth day, and when we take into account the effects of age, sex, constitution and certain unknown atmospheric influences on pneumonic patients, we can readily understand how difficult it is to estimate the relative value of the different methods or plans of treatment which have been resorted to for its cure. There are periods and conditions of life in which pneumonia is almost certainly fatal; and on the other hand, there are periods of life and conditions in which a patient with pneumonia is almost certain to recover. Although there can be but little doubt that a large number of cases would recover if left to themselves, it is equally certain that many lives may be saved by the judicious use of therapeutic measures, and even in the milder cases the duration of the disease may be shortened and convalescence hastened. We should always bear in mind this fact, that in the successful management of this disease our duty is not so much to treat the diseased lung as the constitutional condition of the patient. The tendencies, the actual state, and the surrounding circumstances, should receive careful attention in deciding on a plan of treatment. A vigorous, healthy subject, free from constitutional vice, will require and bear a more vigorous handling than a broken-down subject from whatever cause. The plan of treatment which has been most extensively employed in the management of this disease, but which is now almost entirely discarded, is general blood letting.

Many years ago no one would have ventured to treat pneumonia without resorting to one or more bleedings; but now, few, if any, would think of having recourse to such a practice. In many cases, however, the question comes up at the outset, as to the propriety of venesection. The reproach of Van Helmot, that "a bloody Moloch presides in the chairs of medicine" cannot be brought against the present generation of physicians. During the first five decades of the last century the profession bled too much, but during the last decades we have undoubtedly bled too little. Pneumonia is one of the diseases in which a timely venesection may save life. To be of service it should be done early. In a full-blooded, healthy man with high temperature and bounding pulse the abstraction of from two to eight ounces of blood is in every way beneficial, relieving the pain and dypsonoea, reducing the temperature, and allaying the cerebral symptoms, so violent in some cases. Without doubt systematic or local bleeding may be of the highest service in pneumonia. Probably there are very few if any cases that could not bear a few good-sized leeches with beneficial results. We are to remember, however, that venesection or local abstraction of blood is only justifiable at the beginning of highly sthenic cases, having full arteries, a bounding pulse, flushed face, and much pain. The fact that an apparently robust person has pneumonia, should not be taken as sufficient evidence that blood letting is to enter into the treatment of the cases. It is an overcrowding with blood of that portion of the lungs which is not the seat of the pneumonia, that is to determine the question of blood letting. Whether or not the abstraction of blood being decided on, the next question is the use of calomel. No cases of pneumonia are seen in these latitudes that are not accompanied by considerable hepatic disorder. There seems to be quite an intimate relation between hepatic disorder and pneumonia. A high degree of irritation, and a temporary increase of productivity is a quite constant condition of the liver in pneumonia.

The external appearances are the intense yellowness, or the jaundiced hue of the skin, of the conjunctive and elsewhere. Modern researches have shown that calomel has a sedative action on the liver, lessens bile production and probably the whole functional activity of the liver. Bartholow says: "It may be that, as the blood in the hepatic veins is so much higher in temperature than in the portal, the reduction in the febrile heat is due to the lessened functional activity of the liver." It is clear that calomel has an antipyretic action. Hence, at the outset, it should be given in a dose of from three to five grains. The repetition of the dose depends on the result of the first, but as a rule from two to four doses are required on the first, second and third days of the active inflammation. In the majority of cases requiring treatment, the indications are to lower the temperature and to support the heart. My own observation has led me to the conviction that there can be no established plan of treatment, that we are not to treat so much the pneumonia as the individual patient. A good principle to adopt is that nature is to be trusted to a great extent, believing that pneumonia patients are more likely to recover under no active treatment, than under a routine treatment bindly followed.

The general management of the case should resemble that of typhoid fever; absolute quiet, freedom from all interruption, a well ventilated room at a temperature of 68 to 70 degrees F., a comfortable bed and a watchful nurse. These are the first requisites. Of efficient measures for controlling the fever, cold applied to the chest either in cold compresses or by ice bags, is a practice long followed in Germany, and now becoming prevalent in this country. It is claimed for this measure that not only does it relieve the local symptoms, but

it lowers the body temperature and hastens the day of crisis. Without doubt the pain and the dyspnoea will be relieved in this way, but the reduction of the temperature and the relief of local symptoms is only temporary. In my judgment, this is a measure not adapted to general use in a country practice, where trained nurses are scarce, and the dangers that may attend its application by unskilled hands are so great. The use of medicinal antipyretics in pneumonia is of doubtful propriety. Quinine has been much vaunted, personally I cannot speak of any special advantage which I have seen from its use. In localities where there is considerable malaria, it is better borne, and is more useful than in most of our towns in Vermont. While it will reduce temperature in a certain proportion of cases, if given in large doses, I believe it is far below other antipyretics in this respect. Antipyrin, antifibrin, and phenacetin have had a thorough trial in pneumonia, but the general opinion of clinical physicians seem decidedly against their systematic use. I think I have seen a great deal of benefit from the early use of veratrium veride when an arterial sedative is indicated in the robust, full-blooded, healthy individual, and I prefer it to the lancet. Given in from one to three drop doses of the fluid extract, in a teaspoonful of water once in two or three hours as needed, will diminish the frequency of the pulse and lower the temperature. After the first two or three days it should be discontinued. After that time sponging the surface of the body with alcohol and water in equal parts, every hour if needed, will control the temperature and stimulate and quiet the patient. Acetanelid may be given in from three to five grain doses when the temperature goes above 103 or 104 degrees. In pneumonia the condition to combat is the toxemia, not the state of the lung. Those medicinal agents upon which most reliance should be placed are the heart tonics, alcohol, strychnine, and nitro-glycerine with oxygen, but it is a mistake to give any of these too early or in a routine way. Alcohol is prescribed as soon as the pulse fails or becomes too rapid (120) and when the pulmonic second sound weakens. It should be given diluted to the extent of ten or twelve ounces, if need be, in twenty-four hours. It is doing good if the pulse improves under its use, if the tongue becomes more moist, and if its odor is not apparent constantly in the breath, showing its complete combustion. In alcoholic patients it is best to give four or five ounces of whiskey daily without waiting for specific indications. In the old and feeble also, stimulants may be indicated from the commencement of the attack, and their use required throughout the course of the disease. In pneumonia affecting the young and vigorous, stimulants are rarely called for, and should be used with utmost caution. Strychnine is a capital heart tonic for pneumonia, given in doses of one-thirtieth of a grain every three or four hours, or in larger doses in alcoholic cases, even until slight muscular twitching is noticed. Nitro-glycerine should be given hypodermically in one-fiftieth grain doses with the strychnine whenever there is disproportion between the heart strength and arterial fullness or resistance, and for impending pulmonary oedema. Expectorants are generally considered of very little importance in pneumonia, but it has been my custom to use some stimulating expectorant throughout the course of the disease. If the viscid secretion is pouring out in the air cells and bronchioles and coagulating, it is necessary to give some agent which possesses the power to lessen the viscidity and coagulation. Carbonate of ammonia as originally suggested by Richardson seems to meet the indication better than anything else I have ever used. Given in solution in doses from three to five grains once in two or three hours, combined with muriate of ammonia, in some cases gives admirable results.

The ammonia solution should be given up to the crisis. As soon as consolidation of the lungs is accomplished, all arterial sedatives of every kind should be discontinued.

For the distressing cough and the pain in the side, opium in some form may be given, either the hypodermic of morphine or, for the cough alone, Dover's powder. When there is delirium the patient should be carefully watched. For these symptoms the cold bath, or cold applied to the head in some way is the most efficient remedy. If there is much excitement full doses of sodium bromide, codeine one-fourth grain, or trional twenty grains may be given very successfully. Dyspnoea, restlessness and insomnia are much relieved by codeine one-fourth grain, which is one of the best of soothing agents for pneumonia.

Pulmonary oedema demands dry cupping, a hypodermic dose of atropia one-hundredth grain, and active cardiac stimulation. Pleurisy with large effusion may require aspiration. Oxygen, despite much that has been said against it, is of unquestionable value. Under no circumstances does it do harm, if care is exercised to obtain it pure. It may be given almost constantly, even during sleep, when dyspnoea is extreme and cyanosis pronounced. There are doubtless patients whom it does not aid, but I am confident that many others are enabled by its use to hold out a little longer until the favorable crisis comes and resolution begins.

Local Measures.—The pneumonia jacket, a covering of cotton batting covered with oil silk, and made to envelope closely the entire chest, is sometimes used. All through my practice I have used and been better pleased with a poultice of onions, cut fine, cooked soft, and thickened with flaxseed meal to a consistency sufficiently thick, so that while it is being placed between two cloths and put on the chest of the patient, it will hardly moisten the cloth. I feel safer with it, properly made and applied, than with anything I ever used. For a few years antiphlogistine has been much extolled, and I believe is an excellent thing for an outward application. I would use it next to the poultice I have described. I believe either will modify the course of the inflammation and relieve the pleuritic pain.

Careful feeding forms an essential part of the treatment. Milk, soups, broths, egg albumin, gruels, etc., should be given through a glass tube. It is important to prevent flatulent dyspepsia which embarrasses respiration through upward pressure of the diaphragm. Should tympanites occur it may be relieved by turpentine stupes, the rectal tube, and salol or turpentine given internally. During convalescence the patient should be kept in bed for at least a full week after the crisis to lessen the possible danger from heart failure, and if the pulse is feeble, cardiac tonics should be continued. Prophylaxis should consist in the thorough disinfection or burning of pneumonic sputum and the fumigation of rooms in which cases have been treated before they are reoccupied by others, especially by infants or aged, enfeebled persons.

In the treatment of the second form of pneumonia, or broncho-pneumonia, we must constantly bear in mind the fact that in almost all cases it is a secondary disease, and the occurrence of the disease indicates that the patient is in an enfeebled condition. The frequency and the seriousness of broncho-pneumonia render it a disease which taxes to the utmost the resources of the practitioner. There is no acute pulmonary affection over which he at times so greatly despairs. On the other hand, there is not one in which he will be more gratified in saving cases which have seemed past all succor. The general management should receive special attention. The first requisite is a room of uniform temperature with a moist warm vapor air, not too hot, about 70° F. The bowels should be moved at once.

with castor oil or calomel, and care should be taken throughout the disease to secure a daily movement. If the disease comes on abruptly with high fever, minim, or minim and a half doses of tincture of aconite may be given. All coal-tar depressants should be avoided. Severe cough, restlessness or pain is relieved by one grain doses of Dover's powder or a little paregoric for infants. The body should be covered with flannel night clothes and sleep in warm rooms. Mild counter irritation should be made over the chest with camphorated oil inunctions or equal parts of turpentine and vaseline applied twice daily, the chest being kept wrapped in cotton batting and oil silk. Here again the onion and flaxseed poultice, or the antiphlogistine are very serviceable. If cough is ineffectual and tenacious, mucus accumulates and cyanosis is present, it is well to give mild expectorants and wine of ipecac in doses of five minims, or the aromatic spirit of ammonia in brandy is useful. For a stimulating expectorant ammonium carbonate is the best in doses of from two to five grains in brandy. Oxygen should be constantly inhaled and the heart should be stimulated with brandy and strychnine.

Cerebral cases as well as high temperatures are best relieved by cool baths, placing a child in water at 95° F., quickly cooled with ice to 80°. If necessary, a little bromide of sodium may be given. The diet should consist of beef juice, white of egg and milk. During the entire course of the disease the food should be fluid, nutritious and given with great care and in the most concentrated form. Elderly patients require careful watching. Food should be offered every two hours in small quantities. Beef juice, beaten eggs, farinaceous gruels, milk toast and broths constitute the dietary. By way of prophylaxis much can be done to reduce the probability of attack after febrile attacks.

Thus, in the convalescence from measles, whooping cough and scarlatina, it is very important that the child should not be exposed to cold, especially at night, when the temperature of the room naturally falls. In a nocturnal visit to our dwellings, how often we see children almost naked, having kicked aside the bed clothes and having the night clothes up about the arms! The use of light flannel combinations obviates this nocturnal chill, which is, I am sure, an important factor in the colds and pulmonic affections of children.

The catarrhal troubles of the nose and throat should be carefully attended to, and during fevers the mouth should be washed two or three times a day with an antiseptic solution. If the child has been ill two or three weeks and shows the emaciation which is so frequently present in the sub-acute form of the disease, cod-liver oil will be found of great service. The administration of this remedy will be found much more beneficial in children than in adults. Wampole's cod-liver oil with syrup of hydriodic acid will be found very serviceable as a general tonic and will assist nature in her effort to clear up the obstructed bronchial tubes and hasten a complete recovery.

DISCUSSION.

Dr. C. S. Scofield, Richford, Vt.—Mr. President and Gentlemen: I wish to commend these papers to which we have had the pleasure of listening, and congratulate the gentlemen who have taken part in this symposium. From my limited experience in the examination and treatment of cases of pneumonia and from the little work I have done in looking this subject up preparatory to this meeting, I am convinced of the thoroughness of the work they have done.

There is very little, if anything, I can add to what has already been said which will prove of value or interest to you. I was surprised myself, however, in looking up the subject of

pneumonia to find at how early a date this condition of disease of the lungs was known. Hippocrates said that pleurisy was "a disease quickly fatal and characterized by sputa of various colors." Although these two diseases were undifferentiated, accurate descriptions of these lesions and objective signs of pneumonia have come to us from the earliest medical writers in Athens, 430 B. C. Much of the early history of this disease is interwoven with the detailed accounts of a great variety of pulmonary symptoms which occurred in the epidemics and plagues of Eastern Europe preceding the Christian era, and in Western and Southern Europe during the sixteenth and seventeenth centuries. The Black Death has been regarded by some as an epidemic of pneumonia. There is no doubt that many of the plagues of that time were complicated with pneumonia. The French investigators were the first to separate the pneumonic process from all other morbid processes which occur in the thoracic organs. Morgani and Valsalver gave accurate descriptions of pneumonia, but they did not distinguish it from pleurisy. Bichat and Pinel separated collapse of the lung attending pleuritic effusions from inflammation of the lung substance. Laennec was the first to draw the line sharply between pneumonia and pleurisy, and to him more than any one else should be given the credit of describing this disease. Following in his footsteps, Chemol, Stokes, Addison and many laborers of our own day have furnished material from which the clinical and pathological history of pneumonia has been constructed.

Later, Jurgensen advocated the infection theory o fpneumonia and presented strong arguments in support of his theory; also Sturgess of London, and Cohnheim, Schuppel and Klebs. Carl Frankel, M. D., professor of hygiene, University of Konigsburg, discovered the diplococcus pneumoniae, which is believed to be the specific cause of the disease, but a debilitated condition of the system renders the individual more susceptible to an attack.

As has already been said, Frankel's bacillus has no voluntary motion and is able to thrive without oxygen. The links of Frankel's diplococcus resemble a lancet, and so surrounded by a capsule which appears as a glassy, lustrous halo or border. Prof. Sternberg in 1880 discovered what he called the pneumonoccus lancelatus, and later demonstrated its casual relation to pneumonia. These germs are found in other parts of the body and when injected into the lung, they produce typical croupous pneumonia; when in a dry state, the pneumonococcus retains its virulence for months. The disease has been communicated to new-comers in houses that have been closed for months. Recent researches show that in fatal cases of pneumonia, the specific germ is quite often found in the blood; while in cases ending in recovery, it is only exceptionally encountered. Dr. Andrew H. Smith states that no amount of injury of the lung produces pneumonia. Can have pneumonococcus infection in synovial or serous cavities with suppuration in each, and not have pneumonia.

We may introduce the pneumonococcus into the body and blood, and not have pneumonia. But if active pneumococci are introduced into the lung, we get pneumonia as the result. Probably every case of pneumonia coming to autopsy, if carefully examined, would reveal the pneumonococci in the lungs. Dr. Smith describes the course of pneumonia as follows:

"1. Some depression, either local or general, which favors the germination of pneumonococci already present in some of the smaller tubes.

2. The formation of a colony until it reaches the group of air vesicles that are terminal to the tubes in question.

3. The setting up of an irritation in these vesicles, causing a fibrinous exudate, an emi-

gration of leucocytes and a diapedesis of red cells from the functional capillaries.

4. The formation of a colony of pneumonococci in the medium afforded by this exudate.

5. The arrest of the blood stream in the functional capillaries, followed by the accumulation of free pneumonic acid in the parenchyma of the affected area.

6. Overflow of exudate into the neighboring lobes, starting the process in them also.

7. Arrest of germ growth by exhaustion of the medium and the accumulation of free acid in the tissues of the lungs. Up to this time there has been a constant formation and absorption of toxin.

8. Retrogressive changes in the exudate preparatory to its removal by absorption.

9. Probably in this latter process the formation of an antitoxic principle.

10. The entire removal of the exudate and restoration of the vesicle to its normal condition.

11. Resumption of the functional capilliary circulation."

In connection with the pathology of pneumonia I wish to show some plates which Dr. Wiltse of the Vermont State Laboratory has recently had bound and kindly loaned me for this purpose, showing different stages of the disease in the lung.

The diagnosis of the disease is oftentimes not easy, but the abrupt onset, chill, sharp pain in the side, fever, rapid breathing, rusty or bloody expectoration, vocal resonance, and fremitus, exaggerated, crepitant rales, with dulness or flatness on percussion, some or all of these may be present to aid in diagnosis. I find in children crying aids me in a diagnosis of disease of the lungs rather than quiet.

Prognosis depends much on the general condition of the individual, amount of lung involved, habit as to the use of alcohol, etc. Increased pulmonary second sound shows increased tension in the pulmonary artery and measures the obstruction in the lung and power of the right ventricle. An attack of herpes labialis is said to be favorable. I have noticed in my own case, if herpes follows an attack of cold, I seldom have a cough; the disease does not extend to the bronchial tubes. Without herpes, I usually have a cough; I have noticed this many times.

Treatment.—The anti-pneumonic serum was discovered by Professor Pane of the Royal University of Naples, and first introduced to the medical world by a paper read by him before the Royal Academy of Medicine of Naples in 1897. It was first tried in Prof. De Ranzi's Medical Clinic, Naples, with good results. The instrument used was a large hypodermic syringe, sterilized by 4 per cent. solution carbolic acid and the skin by Hg. Bi-Chlor. 1-1000 on cotton over the seat of puncture, which is between the tenth and twelfth ribs in posterior axillary line, and left for ten minutes. The serum is injected night and morning and no other medicine used. Diet, milk, eggs and brandy.

Dr. Antonio Farroni reported a series of six cases treated with the serum and all recovered.

1. He states that he thinks the anti-pneumonic remedy is the rational remedy in pneumonia, as it constitutes the specific treatment, same as Behring's antitoxine does in diphtheria.

2. That injections with serum are not painful, simple to give, with no general or local reaction.

3. That serum over six months' old is no longer active and after the fourth month begins to lose its activity, and amount should be increased.

4. Serum does not do harm even in doses of 100 to 150 cubic centimeters in twenty-four hours.

5. That it produces rapid improvement and hastens resolution when given early in the disease.

6. It is the physician's duty to use it in cases with grave prognosis, and if he fails to do so, there is no excuse for him except he be ignorant of the work done in the field of serum therapy of pneumonia.

Dr. Alexander Lambert of New York city reported in 1900, twelve cases treated with the serum, with nine recoveries and three deaths. He states: "That serum seems to cause a slight reduction of the temperature and improvement in the pulse. It did not cause a crisis in any case, nor seem to cut short the pneumonic process." He further states: "I have not persisted in the use of the serum because I could not see that it shortened the disease nor held in check the pneumonic process within the lungs. In one or two cases I honestly believe it did marked good; in others it was useless. The pneumonic serum at present does not seem to shorten the duration of the disease, nor cut short the pneumonic process in the lungs nor bring about the desired crisis, but it does seem in certain cases to prevent a general pneumonococcus septicemia and thus in these cases it may save life."

Simon Baruch, M. D., in the New York Medical Journal, 1893, states he uses cold water in the treatment of pneumonia, not in the full bath, but several layers of old linen cloth wrung out of water 60 degrees or more, repeated every half or two hours, according to the patient's condition, and applied to the chest.

Personally I have never tried the serum treatment or cold applied to the chest; my treatment has been mustard to the chest until thoroughly reddened and repeated when necessary, followed by camphorated oil, or glycerine and a good jacket of medicated lamb's wool or cotton, if the wool could not be obtained.

As to the medicine used, the alkaloidal trinity of aconitine, digitaline and strychnine have given me the best results. Salicylate of sodium is said to inhibit the growth of the pneumonococcus, 10 to 15 grains every two hours. Creosote seems to be used quite a bit, but often disagrees with the stomach. Aspirin, 15 grains four times daily, is good, and calomel should be used when needed. If the patient is cyanosed, oxygen, nitro-glycerine, alcohol and plenty of good fresh air are indicated.

As to diet, bovinine is my sheet anchor; it is very nourishing, can be given in cold water which the patient so often craves and in many cases will stop vomiting. In one case I had, when I had tried everything I could think of to stop vomiting, without avail, bovinine stopped the vomiting and was retained throughout the whole course of the disease. Milk is good if well borne; also meat juice, broths and egg albumen. White of egg in cold water with lemon juice is refreshing, nourishing and often well borne. Appolinaris and soda waters should be given in considerable quantities to keep the kidneys active. Carbonated waters reduce the vicidity of the mucus which is very often tenacious. See that the diet is one which will not excite the cough in swallowing or overtax the digestive powers.

I wish to acknowledge my appreciation of the courtesies of Dr. Wiltsie, and the loan of his book of plates showing the condition of the lung in the different stages of the disease; and also the assistance given me by Messrs. Park, Davis & Co., in looking up this subject.

S. E. Maynard.—There is a time in the latter part of the disease when the right heart begins to fail, the veins begin to be full, the face begins to have a purple tint, and there is every sign of venous congestion. It may be now near the crisis. There is danger of the right heart. This is the time when blood-letting will do some good. Don't make any difference how pale your patient is. Take out some blood and you will soon see the benefit. I had a patient which I bled, taking eleven

ounces; his respiration had been up to 60, but it came down first to 45 and then 32; the patient turned over and went to sleep and the next day he had his crisis. When you see the right heart overloaded, so to speak, let out some if the blood. With pneumonia we are always afraid of heart failure; where I have given digitalis right along, I have had less danger of heart failure. I have always found that digitalis and nitro-glycerine work very nicely together. Morphine is the sheet anchor. With toxemia do not use saline infusions. Osler is not using it any more, and I find in my practice it is beneficial to the patient not to use it. Where children are afflicted with pneumonia there is great danger of their going to sleep and strangling. I have had an English nurse who every time a child went to sleep would wake it up and give it a good spanking: it would then cough up this mucus. I never gave myself any credit for saving the lives of those children. It was simply this English nurse who would keep the children awake and make them cough up the mucous material.

NEWS, NOTES AND ANNOUNCEMENTS

Burlington and Chittenden County Clinical Society.—The regular meeting will be held at 162 College St., Friday, Feb. 26, 1904, at 8.30 P. M.

PROGRAMME

A Clinical Study of Certain Forms of Pericarditis, Dr. H. E. Lewis.
Discussion opened by Dr. F. E. Clark.
Refreshments.

Married.—Dr. Otto V. Greene of Bethel, Vt., was married to Miss Kate Bascom of the same place, February 24th, 1904.

Special Pullmans for Consumptives.—As the result of agitation on this subject, and especially following the recommendations of the United States Public Health and Marine-Hospital Service, it is announced that the Pullman Company will add to its equipment hospital cars to run to California on certain days each week, in which consumptives and other sick persons must travel, ordinary Pullmans being reserved for persons in health.

RECENT DEATHS.

Jefferson Cushing Gallison, M. D. Boston University, 1875, College of Physicians and Surgeons, Boston, 1888; Tufts College, Boston, 1894; Harvard University Medical School, Boston, 1895; a member of the legislature; demonstrator of anatomy at the College of Physicians and Surgeons from 1889 to 1892; lecturer on surgical pathology at Tufts Medical College, 1893; member of the Massachusetts Medical Society and of the Thurber Medical Society, died from heart disease at his home in Franklin, Mass., February 22, aged 62.

Dr. Gallison has made several interesting contributions to the Vermont Medical Monthly during the past few years, and we sincerely regret his death.

Rodger C. Downey, M. D. University of Vermont, Burlington, 1892, a member of the State and County Medical Societies, died at his home in Middletown, Conn., February 15, from erysipelas, after a short illness, aged 35.

Amasa Ward, M. D., died at his home in Hardwick, Vt., from paralysis, after a long period of invalidism, February 20, aged 80.

Examinations for Marine-Hospital Surgeons.—The surgeon general of the U. S. Public Health and Marine-Hospital Service announces that there will be an examination at the bureau, 3 B Street, S. E., Wash-

ington, D. C., Monday. April 4, 1904, at 10 a. m., of candidates for assistant surgeonships. The candidate must be between 22 and 30 years of age, graduate of a reputable medical college, and must furnish testimonials from responsible persons as to his professional and moral character. In addition to the physical examinations, candidates are required to certify that they believe themselves free from any ailment which would disqualify them for service in any climate. The examinations are chiefly in writing, and begin with a short autobiography of the candidate. The remainder of the written exercise consists in examination on the various branches of medicine, surgery and hygiene. The oral examination includes subjects of preliminary education, history, literature, and natural sciences. The clinical examination is conducted at a hospital and when practicable candidates are required to perform surgical operations on a cadaver. Successful candidates will be numbered according to their attainments on examination, and will be commissioned in the same order as vacancies occur. On appointment the young officers are, as a rule, first assigned to duty at one of the large marine hospitals, as at Boston, New York, New Orleans, Chicago or San Francisco. After five years' service, assistant surgeons are entitled to examination for promotion to the grade of passed assistant surgeon. Promotion to the grade of surgeon is made according to seniority, and after due examination, as vacancies occur in that grade. Assistant surgeons receive $1,600; passed assistant surgeons, $2,000, and surgeons, $2,500 a year. When quarters are not provided, commutation at the rate of $30, $40 and $50 a month, according to grade, is allowed. All grades above that of assistant surgeon receive longevity pay, 10 per cent. in addition to the regular salary for every five years' service up to 40 per cent. after twenty years' service. The tenure of office is permanent. Officers traveling under orders are allowed actual expenses. For further information, or for invitation to appear before the board of examiners, address the surgeon-general, as above.

Pneumonia.—This is the one disease in the United States the mortality of which is steadily increasing. In 1890 there were 186.9 deaths per 10,000 population; in 1900, 191.9 deaths per 10,000. Life insurance companies pay more death claims on account of pneumonia than from any other disease. The mortality in hospitals ranges from 20 to 40 per cent. One writer states that of all persons in the United States reaching 50 years in good health, one-fourth die of pneumonia; and of all who reach 75 years, nine-tenths succumb to pneumonia.

Since 1900 (*American Year-Book of Medicine*) pneumonia has caused the death of one-eighth of all persons dying in Chicago—one-third more than consumption and 44 per cent. more than all the other contagious and infectious disease s combined.—*Denver Medical Times.*

The Cough-Sequela of La Grippe.—Dr. John McCarty of Briggs, Texas, (Louisville Medical College), in giving his personal experience with this condition, writes as follows: "Ten years ago I had la grippe severely and every winter since my cough has been almost intolerable. During January, 1902, I received a sample of Antikamnia & Heroin Tablets and began taking them for my cough, which had distressed me all winter, and as they gave me prompt relief, I ordered an ounce box which I have since taken with continued good results. Last fall I again ordered a supply of Antikamnia & Heroin Tablets and I have taken them regularly all winter and have coughed but very little. I take one tablet every three or four hours, and they not only stop the cough but make expectoration easy and satisfactory."

The Vermont Medical Monthly.

A JOURNAL OF REVIEW, REFORM AND PROGRESS IN THE MEDICAL SCIENCES.

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Burlington, Vt., February 25, 1904.

EDITORIAL.

WHY PNEUMONIA IS INCREASING.

The remarkable increase in the number of deaths from pneumonia is startling. During the last ten years there has been a steady annual increase in the mortality from this disease and the figures are reaching proportions that bespeak earnest, thoughtful attention. In our struggle with tuberculosis we have overlooked the dangers from pneumonia, and in the hour of our growing victory over consumption we are confronted by what promises to be as great if not a greater problem. Pneumonia much less than consumption is no respecter of persons. age, race, or physical condition. The young and the old, the low and the high, the weak and the strong, are all subject to its ravages. The sanitary, well-ventilated and heated home of the millionaire is no safer against its attack than the reeking, damp hovel of the poor man. This seems strange, but it is true. The sanitary conditions of the civilized world have improved wonderfully and all diseases have grown less prevalent with the single exception of pneumonia.

Now then, why is this so? Why is pneumonia more prevalent and fatal? Some claim the statistics are more apparent than real and attribute the increase to more accurate diagnosis and more accurate mortality data. This may be so to a certain extent, for it is a fact that vital statistics and health board returns are more reliable than ever before. But the great increase in pneumonia is not statistical alone. It is a real, tangible increase and every practitioner knows it.

To the writer it would seem that the increase of pneumonia is due to an increased virulence of the infective agent. It is generally accepted, and we have abundant proof to believe that pneumonia is an infectious disease, due to a specific organism. The history of infectious diseases would point to the significant fact that they rise, have a period of greatest virulence, then a period of decline and attenuation. The epochs of most any disease cover so great a period of human history and statistical knowledge of all diseases has until recently been so meagre, that one can hardly get the force of this theory from personal observation. But it is a fact that many diseases are in their declining period and the changes in their protean aspects, together with their numerical decrease cannot be attributed to sanitation and prophylactic measures alone. Note typhoid and typhus fevers for example. These diseases are certainly in their period of decline and the great decrease in their prevalence due to prophylactic measures is no more noticeable than the changes in their pathologic expression and aspects. So also in regard to small pox. There are many practitioners who have seen a great change in the characteristics of small pox during the past fifty years. The disease is certainly not so severe and has become modified in its expression and pathologic course. Likewise other diseases have become modified or changed.

It would seem, therefore, that time and environal circumstances have important influences on the agents of disease. The height of

virulence is reached slowly through progressive generations of any bacterial species. This stage of increment in the history of a disease may cover many years, and be profoundly influenced by the circumstance of human living. Up to a certain point a species of bacteria can grow and maintain its maximum pathogenicity. Then there comes a time when the family begins to decline, the struggle for existence gets relatively harder and the pathogenic influence of the species grows less and less. The disease produced by this particular germ family undergoes modification by the attenuation of its specific cause and the clinical expression is changed materially.

It is more than possible that the infective agent of pneumonia is approaching the zenith of its pathogenic influence, and for an indefinite period the human race will have to combat its increasing dangers. It is to be hoped that we will not have to wait for it to run its course, and that some means of curing pneumonia will be found while its baneful influence is most evident.

THE ANTITOXIN CONTROVERSY.

For some time past there has been considerable controversy in the lay and medical publications of the country in regard to the so-called "Antitoxin Trust." From a careful study of all phases of the discussion and the correspondence submitted, we have become disgusted with the blatant agitators who are raising such a hue and cry about high priced antitoxin. In our opinion price is entirely a secondary matter and we have complete confidence in the integrity of the several firms who supply the major amount of antitoxin used in the United States. If they make the statement that the present market price is justified by the cost of production, we believe them. All we insist upon is that the antitoxin produced shall be the safest, the best and the most efficient that is possible. This is a legitimate demand on the part of the consumer and the price of the product must be left to the manufacturer. The greatest evil in the world of production to-day is a senseless demand for cheap products. Quality is relegated to the background and the people, though they may not know it, are the losers. Manufacturers cannot be blamed for catering to this demand, in general matters, but when it comes to therapeutic products, with all that depends on their quality, we say all hail to those firms who place quality first.

In regard to the municipal production of antitoxin, we must voice the strongest disapproval. The element of competition is removed and there are many objections to the plan that are patent to every thoughtful person.

The following letter from one of the largest producers of antitoxin in the country is interesting:

To the Editor of the Vt. Medical Monthly:

You have heard the clamor about antitoxin. Do you wish to know the exact truth respecting prices, grades, packages, etc.? Would you like to judge for yourself? We invite your attention to the enclosed memorandum of prices and potencies, *old and new,* and to the following statements:

1. The recent change in prices *is a reduction, not an advance.* See enclosed comparison.

2. A single grade of serum now supersedes the two grades heretofore in vogue, thus doing away with all confusion between "Standard" and "Special," X and XX.

3. Five packages or doses replace the ten heretofore supplied—this with a view to reducing the enormous loss and waste of returned serum.

4. Approximately 40 per cent. of all serum is returned for exchange. What becomes of the returned serum? It is all destroyed.

5. We keep in stock, for sale on demand

only, but without formal addition to our list, a 500-unit dose and a 1000-unit dose, both in the old-style hermetically sealed bulb, without injecting device, at the respective prices of 75 cents and $1.50, as in the past.

6. The doses and potency of the new grade are stated on the enclosed memorandum.

7. To boards of health and municipalities we will supply on application a pure, safe and reliable serum of guaranteed potency, at a specially low price commensurate with cost on the following conditions: (*a*) That it is to be donated to the indigent sick and not resold; (*b*) that it is not subject to exchange; (*c*) that it is to be supplied in hermetically sealed bulbs, unaccompanied by either of the injecting devices furnished with our regular product at the option of the purchaser.

8. There is no "Antitoxin Trust" or monopoly of any character.

We shall be glad to answer in person at our office, or by letter, any questions which you may wish to put to us.

No. of Units in Package*	Price of old X Serum†	Price of old XX Serum‡	Price of new Package	No. of Units per cc. in new package
500	$ .75	$1.15	$1.10	300
1,000	1.50	2.25	2.00	300
2,000	3.00	4.00	3.50	400
3,000	4.50	5.75	5.00	500
4,000	(Not formerly listed.)		6.50	600

MEDICAL ABSTRACTS.

THE PREVENTION OF PNEUMONIA.—The intention of this article is not to deal with drugs which are to be used for the prevention of pneumonia, because, so far as we know, no such drugs exist. It is, however, important that every physician should recognize that croupous pneumonia is an acute infectious disease, and that as such we should take all possible measures to prevent its spread. There is reason to believe that persons who because of moderate vitality are prone to infection by the pneumococcus may very readily become ill if exposed to this organism. Several times within the last few years we have been impressed with the carelessness of physicians in regard to the possibility of infection by this germ. We have repeatedly seen patients, ill with pneumonia and influenza in hotels, cough violently, and unintentionally expel upon the blanket which covered them tiny particles of sputum which were literally reeking with pneumococci or with the specific micro-organism of epidemic influenza. While the proprietors of these hotels doubtless took care that the bed linen was carefully washed after being used by such patients, in the majority of instances they certainly were not instructed that the blankets were sources of dangerous infection, and doubtless other persons, many of whom were in impaired health, who have slept under these blankets have become infected by pneumonia, and have wondered where they have acquired the disease. Again and again we have seen the carpet exposed to similar chances of infection, and it is by no means uncommon to see a patient rest the surgical gauze, into which he has expectorated, upon the blanket which is in front of him.

While most physicians insist that patients with tuberculosis shall expectorate into spitcups or cloths which either contain antiseptics or which are at once disinfected, they are far too frequently lax as to the orders which are given for similar treatment of the expectorated material in croupous pneumonia. While we have no way of destroying the pneumococcus when surrounded by some of the conditions which seem favorable to its existence, it is certainly the duty of the physician, not only for the sake of his patients, but also for his own benefit, to see to it that the myriads of cocci cast off by a patient with pneumonia are destroyed before it is possible for them to do

further damage by infecting other persons.—*Therapeutic Gazette*, Feb. 15, 1904.

TREATMENT OF PNEUMONIA.—Musser (*Clinical Review*) considers that in 60 per cent. of cases, careful nursing only is needed, while in 40 per cent. much is done by the physician. The principal points of his treatment are: Dry cups, used early from one to three times; a calomel purge; free use of water, both internally and externally; salt solution subcutaneously and by rectum; champagne if necessary; hypodermic of morphine for pain, if not relieved by ice or cupping; spinal puncture if meningitis occurs; attention to the kidneys; leeching or venesection for dyspnoea with dilation of the right side of the heart either before or after the crisis.—*Denver Med. Times.*

MEN AND AFFAIRS.

The railroads of Vermont with very few exceptions are almost a disgrace to the State. For a train to be on time, especially over the Rutland road, is a matter of great surprise. Even during the summer months, when the common excuses of snow and ice cannot be employed, it is the exception for important through trains to run anywhere near schedule time. Regular travelers from other parts of the country often express their disgust for the train service in Vermont, and there is little wonder. The way freight and passenger trains mix up with each other is enough to make a Vermonter hesitate long before leaving his happy home, and one who travels much in Vermont must either have sublime faith in God's goodness, or be a fatalist. Otherwise he will be in a state of constant terror and apprehension.

Now, there is no excuse for this sort of thing. The Rutland road is surpassed by none in equipment and facilities, and with the new addition to its mileage, it is a remarkable railroad. The territory it taps is marvelous for its scenery, its progressiveness and its possibilities. Run right with due attention to the public and its needs, the Rutland ought to achieve a success that few other roads can hope for. But a running schedule that can be adhered to must be adopted and traffic rules instituted that preclude the possibility of collision, before the road can accomplish the most for its territory or itself. It is true that few passengers have been injured on the Rutland road, but this happy fact is due to good fortune and not to the absence or infrequence of dangerous possibilities.

In regard to the Central Vermont, much the same can be said, only more of it.

We hope that these few words will be sufficient and that the various railroads inVermont will mend their ways. Our State is approaching the dawn of a new era and we want our railroads to get their freight trains out of the way and get us there in time for the dawn. This does not seem an unreasonable desire.

* * * *

Vermont has always been noted for the versatility of her medical men. Probably no other State in the country can boast of any more practitioners of medicine who are capable of undertaking anything in the realm of medical practice than in Vermont. One of Vermont's most versatile doctors is Dr. C. E. Chandler of Montpelier. One of his colleagues not long ago told the writer that he never knew a physician who could do so many things and do them so well. Dr. Chandler's practice demonstrates the quality of his work, and tells louder than words of the success he is enjoying. As a surgeon he has done some mighty good work and lots of it, and the same can be said of his labors as a general practitioner and obstetrician. From what we hear of Dr. Chandler in his own territory, we are convinced that those who know him the best like him the most.

Dr. C. W. Bartlett of North Bennington is another Vermont doctor whose all-round work is worthy of commendation. Dr. Bartlett is a general practitioner, but he is doing some remarkably good abdominal and genito-urinary surgery. As a consultant his reputation is an enviable one and Dr. Bartlett is one of the leaders in the progressive medicine of our State. He is a scholarly man, a pleasing speaker, and altogether a man who knows his business.

* * * *

Dr. Grinnell's many friends are gratified at the outcome of his suit against the New York millionaire Weston. The case, one of false arrest, has been a famous one and the sympathy of the public has been with Dr. Grinnell. He was awarded a verdict of $12,000 by a New York jury, and the only surprise is that it was not larger.

* * * *

Radium has reached Vermont and a Burlington physician has obtained one-sixth of a grain with which he proposes to cure everything. The newspaper reports of his acquisition are so glowing that they suggest that they too have been liberally treated by some radioactive material.

BOOK REVIEW.

Obstetrics for Nurses.—By Joseph B. De Lee, M. D., Professor of Obstetrics in the Northwestern University Medical School, Chicago; Lecturer in the Nurses' Training Schools of Mercy, Wesley, Provident, Cook County, and Chicago Lying-in Hospitals. 12 mo. of 460 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Co., 1904. Cloth, $2.50 net.

Although this work was written, as the author states, primarily for nurses, yet from our interesting examination of it we firmly believe that medical students will find in it much of value, since the duties of a nurse often devolve upon him in the early years of his obstetric practice. There are really two subjects considered—obstetrics for nurses and the actual obstetric nursing—and Dr. Lee has combined them so that the relations of one to the other are natural and mutually helpful, presenting this important branch of medicine in a clear and interesting form. The illustrations have not been borrowed from other works, as is too frequently the case, but have been made expressly for this book. The photographs were taken by the author from actual scenes, and are true to life in every respect. The text is the outgrowth of eight years' experience in lecturing to the nurses of five different training schools.

A Compend of Pathology, General and Special.—A Student's Manual in one volume. By Alfred Edward Thayer, M. D., Professor of Pathology, University of Texas. Second edition, containing 131 illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut St. 1903.

The present volume embraces the two compends of pathology by the same author, issued in 1902. The text has been thoroughly revised and a chapter on the nervous system has been added. For clearness and conciseness Dr. Thayer's compend is admirably suited to the use of students, who will also appreciate the limp form of binding. The illustrations are excellent, including a number of colored figures and plates.

Atlas and Epitome of Operative Gynecology.—By Dr. O. Schaffer of Heidelberg. Edited, with additions, by J. Clarence Webster, M. D. (Edin.), F. R. C. P. E., Professor of Obstetrics and Gynecology in Rush Medical College, in affiliation with the University of Chicago. With 42 lithographic plates in colors, many text cuts, a number in colors, and 138 pages of text. Philadelphia, New York, London: W. B. Saunders & Company, 1904. Cloth, $3.00 net.

This new addition to Saunders' admirable series of Hand-Atlases is excellent. It is unfortunate that medical students graduating each year know less about gynecologic operations than about almost any other department of operative surgery. This atlas, therefore, is opportune, and the excellence of the lithographic plates and the many other illustrations render it of the greatest value in obtaining a sound and practical knowledge of operative gynecology. Indeed, the artist, the author and the lithographer have evidently expended much patient endeavor in the preparation of the water colors and drawings. They are based on hundreds of photographs taken from nature and reproduce faithfully and instructively the various situations which they intend to illustrate. The text closely follows the illustrations, and we have found it fully as accurate. We consider it of great value to the up-to-date practitioner and surgeon, as well as to the specialist.

NEWER REMEDIES.

Necessity Creates the Demand.—The rapid pace at which the American people are living draws heavily upon the physical bank account. To withstand the demands of nature large quantities of food are consumed and in many instances proper time for digestion is not given. To retain health, elimination of waste products is as important as nutrition and the presence of rheumatism, gout, asthma, sore throat, lithemia, neurasthenia, etc., many times indicates that the organs of elimination are not properly functionating, and that waste products, especially uric acid, are being stored up in the system. In these conditions an eliminant and uric acid solvent is indicated and as a remedy which has stood the test of time and rendered most excellent services in these cases, Hayden's Uric Solvent is highly recommended. This preparation is a product of the laboratories of the New York Pharmaceutical Co., Bedford Springs, Mass., who need no introduction to our readers, but we mention it, as it means "Standard of Merit." Write them for copy of booklet "Human Laboratory."

Sanmetto for Enlarged Prostate in the Aged and Enuresis Nocturne in Children.—My experience with Sanmetto has been most gratifying. I consider it the greatest remedy I ever used in cases of aged men with enlarged prostate. I am now using it in two cases of nocturnal incontinence—both children are improving rapidly.

Olpe, Kans. W. H. LYLE, M. D.

An Up-Builder in Post-Grippal Cases.—Very many of our readers know, by reputation at least, Dr. A. H. Ohmann-Dumesnil, one of the foremost physicians of St. Louis. From a letter of recent date we are permitted to quote the following, which we do with pleasure: "I needed a roborant, and took, with much benefit to myself, Hagoe's Cordial of Cod Liver Oil Compound. Since then I have had occasion to use it in a number of cases of grippe, and in all of them the results were of the best. The action of this preparation is rapid and thorough; and in a remarkably short time a case is recovered. It is certainly the remedy par excellence for this now prevalent affection.

"In a number of post-grippal cases in which enteric neuralgia, bronchial involvement, and a number of nervous symptoms manifested themselves, I have found this preparation equally effective. It is an excellent up-builder and rapidly restores to its former condition the weight which has been diminished by the waste of tissues consequent to grippe."

This is certainly very high praise and from an eminent authority.—*Mass. Med. Jour.*

MINERAL WATERS.—"Ignorance gives a sort of eternity to prejudice and perpetuity to error."—*Robert Hall.*

The American medical man is exceedingly slow in appreciating the advantages to his therapy offered by our great variety of mineral waters. The American layman, on the other hand, is being firmly impressed that he may be relieved of many of his bodily ills, pleasantly and speedily, by using these mineral waters. (That is why the mineral springs are prospering and will continue to prosper, whether they are commended by physicians or not.)

The layman may be accused of accepting these mineral waters because he knows nothing about them. It is doubtless equally true that our medical men decline to accept the waters for the same reason.

To our way of thinking, the layman accepts the mineral waters because he has had quite convincing evidence of their efficiency which is attested by many of his intelligent friends. The doctors decline to accept the waters—well, heaven only knows why!

There is no doubt whatever but that the American people are year after year becoming more interested in mineral waters, and thousands are now making their annual pilgrimages to the springs where there were but hundreds a few years ago. Our "pooh! poohs!" and "tut! tuts!" can not stem this ever-increasing tide. There is no use in our trying. The layman has learned the benefits to be derived from many of our waters and he appreciates that he may regain health at the springs with more comfort than in any other way. This is a day of "elegant therapeutics" and our patients will no longer tolerate the "nauseous mass" when they learn that the sugar-coated pill will accomplish the same results.

So the layman goes to the mineral springs and is generally benefited. He prefers to go with his doctor's approval; but he will go, if needs be, without it. We may argue the absurdity of the use of mineral waters, but the practical layman of to-day judges the pudding by the eating, and his sound experience may have taught him the absurdity of our own arguments. We may tell him of cases in which the mineral waters have failed to accomplish results, and he will refer us to our own case history books to remind us of the uncertainty of all therapeutic procedure.

Argue as we will, ignore as we choose, the American people are becoming imbued with the belief that mineral waters have to offer them many benefits, and this belief is increasing constantly. The United States, by its natural resources and the popular interest in the matter, is destined to become one of the greatest if not the very greatest nation in the world. This should all come about through the agency and under the patronage of the American medical profession, and the profession would gain thereby. Will this be the case, or will our patients wander away from us to use the mineral waters in a hap-hazard way, with just enough good results to keep them convinced that our attitude against mineral waters is both bigoted and wrong,

We complain in our virtuous way that the mineral springs are, many of them, conducted and advertised like patent medicine lines. There is some truth in this, perhaps. Our mineral springs are not getting the proper intelligent medical supervision, and yet they are giving ample results to convince intelligent people that they have great virtues. It will not soil our delicate hands to rescue our valuable springs from this objectionable condition. Certainly we should not be deprived of these excellent therapeutic forces on account of some ethical prejudice. The mineral springs of the country need us, but not a whit more than we need them.

No intelligent physician can deny the effi-

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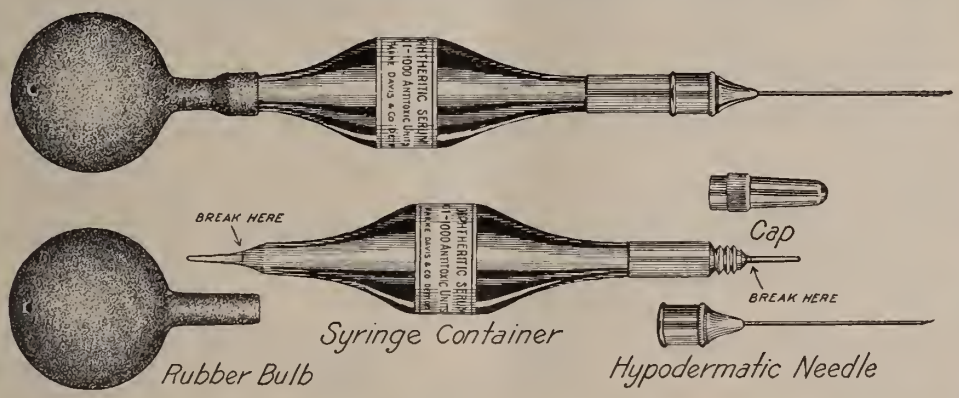

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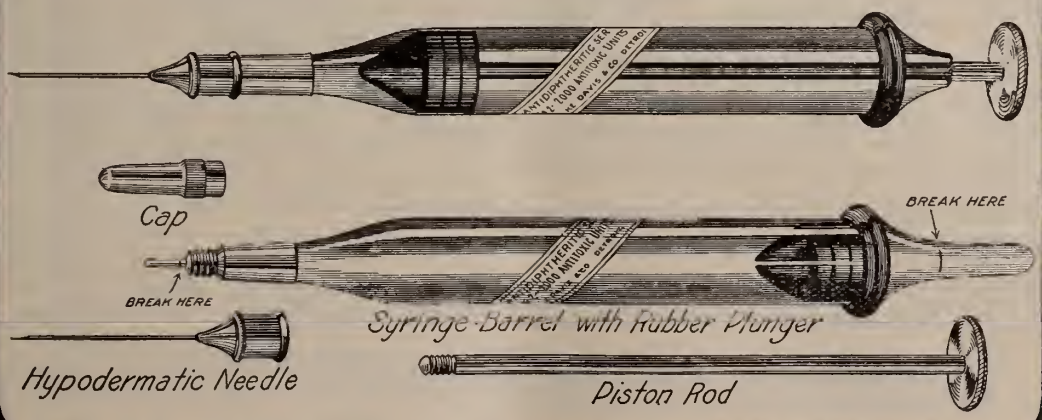

ciency of mineral waters. His appreciation of the value of these waters is usually in direct ratio to his knowledge of the subject. European therapists, in whose footsteps in other lines we delight to tread, are firm believers in mineral waters. Doctors and educated laymen since the days of Hippocrates have not all been fools or victims of delusions.

We do not believe in mineral waters or we do not use them in our practices because we know so little about them. If we knew so little about opium or strychnia we would not use them either. Confidentially, our apathy in crounotherapy is merely an evidence of our lamentable ignorance of the subject—merely an evidence, in fact, of one point in which we are deficient in the education of the fully-equipped therapist.

You can get along without knowing anything of mineral springs. We once got along without knowing of ether, antisepsis or vaccination. We didn't miss them because we did not know what we had missed. We can get along without mineral waters. It is possible that, with mineral waters, some of our patients may find that they can get along without us. —*From Chicago Clinic and Pure Water Journal.*

Ecthol in Gastric Ulcer.—Battle & Co., Chemists., St. Louis.—I have the pleasure of telling you of a most remarkable experience had with the bottle of Ecthol you kindly forwarded me last month. When I received the sample of Ecthol I had been treating a young man about ten days for what I diagnosed as ulcer of the stomach. For a year before coming to me he had occasionally seen dark-colored blood in his alvine discharges, and now and then he had vomited blood of a lighter hue. There was an indurated spot on the body of the stomach about twice the size of a silver dollar which had been giving him trouble for some time. Could trace no history of cancer in his family. After putting him on teaspoonful doses of Ecthol four times a day, he came to my office and smilingly told me the hard spot was gone. I examined him and found it to be true. During this last week he had been on Ecthol alone. The vomiting had also ceased and he had gained in bodily vigor. Gave him a second vial of same, cautioned him as to eating and exercise, and discharged him in fine spirits. I wonder if this case can be matched?

John F. Neal, M. D.

Lytle, Texas, Oct. 14, 1903.

Five cases of membranous croup, with calomel to defibrinate the blood and Abbott's iodized calcium to dissolve the membrane—five recoveries. Don't you call that good?

My own baby had it at seven months and again at ten months of age. Wife says she never wants to be out of Abbott's Iodized Calcium.

Dr. J. D. T.

——, Tennessee.

I find your iodized calcium (Calcidin, Abbott) a specific in croup. I have not failed to relieve the most desperate cases in a few hours' time and have not lost a single case since I began using the remedy.

Dr. J. C. C.

——, Missouri.

An Obstetrical Assistant.—The wide range of usefulness of Hayden's Viburnum Compound in obstetrical practice should make for it a place in every obstetrical satchel. In many instances the physician is not called in until threatening symptoms manifest themselves, which to the trained obstetrician points to abortion. Unless prompt action is taken premature birth will result.

"H. V. C." exerts a sedative effect upon the nervous system and controls uterine contraction and hemorrhage. Through the three stages of labor its usefulness manifests itself. The spasmodic rigidity of the os is relaxed; after pains and dangerous flooding are controlled; and in all it is a most important addition to the obstetrical armamentarium; it is not a narcotic and offers all the advantages of Ergot without its dangerous after effects.

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Is indicated in all Stomach Complaints, and is Superior to Pepsin, Pancreatin and other digestive ferments. It is active under all conditions whether the reaction of the gastric contents is acid, alkaline or neutral.

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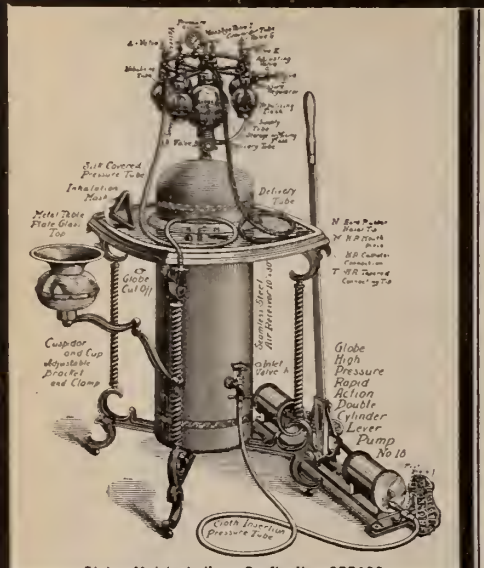

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Vol. x. No. 3. Whole No. 111. | Burlington, Vt., March 25, 1904. | $1 per year. Single copies, 15 cts.

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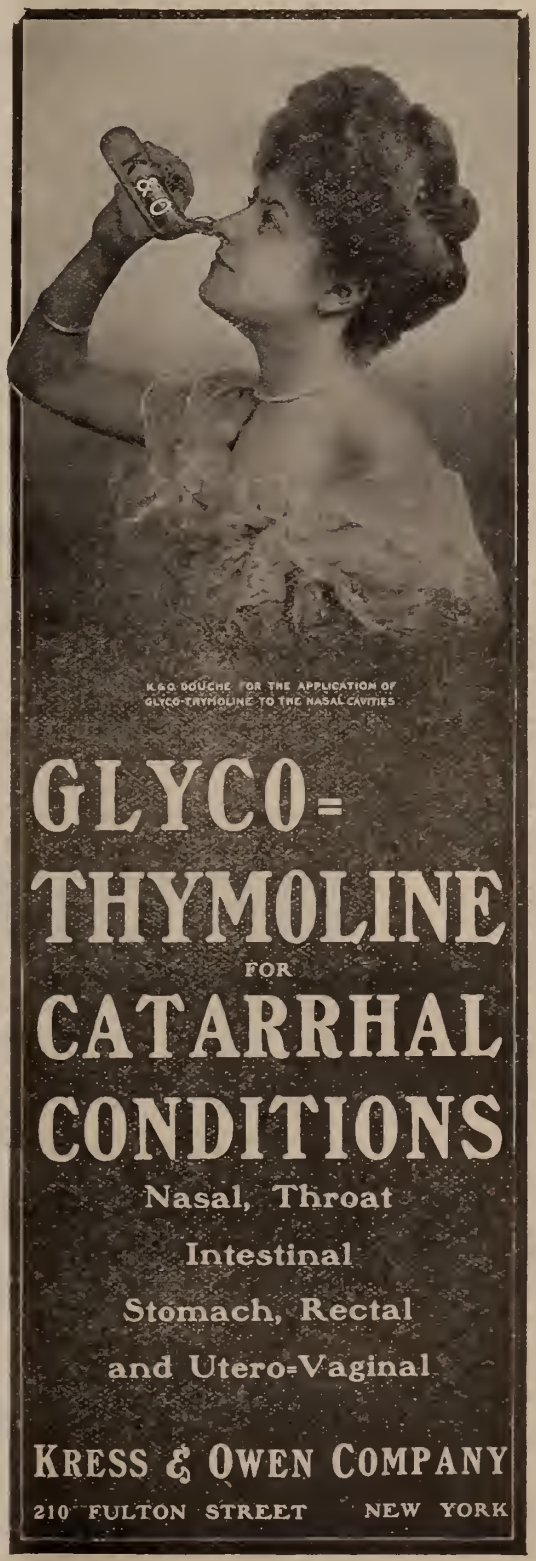

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RHEUMATISM: ITS ETIOLOGY AND TREATMENT*.

By C. B Hussey, M. D., Franklin, Mass.

Perhaps there is no important disease concerning which we are so much in the dark or which offers more chance for original investigation, than does rheumatism. There have been many theories advanced as to the exact nature of this affection, but only two or three have gained any prominence. Until recent years the generally accepted theory was that rheumatism is caused by an excess of lactic acid in the blood. This theory seems to be open to objection, inasmuch as it suggests a cause back of a cause, so to speak. It does not explain the cause of the excess of acid, and it is just as reasonable to suppose that this excess is caused by the disease, as that the disease is caused by the excess of acid. The theory that it may be a neurosis has been practically abandoned, as we do not get the central nervous disturbance, and, under proper treatment, it does not run the prolonged course of a neurotic disease. The theory generally accepted by the leading writers of to-day, is that rheumatism is an infectious disease caused by a germ as yet unknown. The clinical picture and constitutional disturbances of rheumatism are similar to those of other acute diseases which are to-day either believed or known to be infectious. During the past ten or twelve years several investigators have claimed to have isolated the germ of rheumatism. In 1900 it was my privilege to be under the tuition of Dr. Poynton of London, at the time when he and Paine were pursuing original investigations at St. Mary's Hospital in London. These gentlemen isolated a diplococcus from eight cases of acute rheumatism; finding it in the blood, pericardial fluid, urine and tonsils. They inoculated rabbits and produced in them all the symptoms of acute rheumatism, even to heart complications; and again demonstrated the presence of the germ in the joint exudations of these inoculated rabbits. These results were more striking than those of any previous observers, and although nothing further has been published bearing out the truth of these first investigations, they may yet prove to be correct.

Packard of Philadelphia, has declared his belief that rheumatism is due to the presence, not of bacteria, but of their toxins; and that, in many cases, infection takes place through diseased tonsils. This theory does not seem to be incompatible with that generally accepted. Certain it is that there exists some relation between the tonsils and rheumatism; as so many attacks of rheumatism are ushered in with a sore throat; and by probing into the history of our rheumatic patients, we find in a large per cent of cases that they have been subject to repeated attacks of tonsilitis. Just what this relation may be is left for the future to unfold. In my own practice a few years ago, I had a young lady patient who had suffered from six attacks of rheumatism covering a period of from two to three years. During the same period she had many attacks

* Read at a meeting of the Thurber Medical Association, at Milford, Mass., February 4, 1904.

of follicular tonsilitis, and her tonsils were very much enlarged and chronically inflamed. I repeatedly advised tonsilotomy, and finally in June, 1900, after an especially severe attack of rheumatism, I prevailed upon her to submit to the operation. I removed the diseased portions of both tonsils and from that time until to-day, a period of nearly four years, she has not had an illness of any kind although on two occasions she had a transient soreness of the joints of both hands. In addition to the direct cause, there are various predisposing causes, chief among which are exposure to cold and alcoholism. It has been claimed by some observers that people who eat a large amount of meat are particularly susceptible. The evidence seems to be about evenly divided; but as statistics tend to show that rheumatism is not a disease of sedentary life, but rather of that class of people who lead outdoor lives and are subject to exposure; and as this very class naturally allow themselves a more generous meat diet, it would seem that the predisposing cause lies more in the occupation than in the diet. From these brief statements it will be seen that much of the etiology of this affection is as yet a matter of conjecture and that the accepted theory has been arrived at by making the disease one of a class clinically. The treatment of rheumatism is one which calls for special attention to hygienic measures, aside from the specific treatment of the diseased condition.

First of all we should give our attention to the prophylaxis. Patients who have the so-called "rheumatic diathesis" should take great care to avoid prolonged exposure to cold, especially damp cold, and such clothing should be worn as will give the minimum amount of weight with the maximum amount of warmth, and will also allow free evaporation of the poisonous excretions of the skin. In view of the admitted fact that in a great many cases infection takes place through the tonsils, I believe that we should make a careful examination of the throat in every case, and, as soon as convalescence takes place, remove any diseased portion of the tonsils and thus lessen the chances of future infection. When rheumatism has developed the patient should be put to bed at once and placed upon a restricted diet, milk being considered the most efficacious. The patient should be kept warm, but the bed clothing should be light; as the excessive weight adds greatly to his discomfort. No matter what line of specific treatment we may employ, its efficacy will be greatly enhanced by proper attention to the secretions and excretions, and greatly decreased by lack of this attention. The katabolic changes take place much more rapidly in rheumatism than in most diseases, anabolism greatly exceeding metabolism. To care for these excessive waste products we must aid nature by promoting increased activity of the excretory organs. By stimulating secretion, assimilation takes place much more rapidly and efficiently, and this is very essential in a disease which produces marked anaemia so rapidly as does rheumatism. The importance of stimuating the liver as well as the skin and kidneys is often overlooked. Perhaps the best way of accomplishing this is to give 1½ grains of calomel in divided doses, oft repeated, and follow this, one-half hour after the last dose, with a sedlitz powder or a dose of saline laxative. If free catharsis does not take place, the saline may be repeated in a couple of hours. The liver may be kept active by the addition of colchicine to our other treatments, especially in robust cases. On account of the free diaphloresis which accompanies rheumatism, and as the sweat quickly decomposes, the patient should be frequently bathed with warm water and the bed linen changed daily. Having paved the way for our more specific treatment, we find that our sheet an-

chor is some one of the salicylates. It must be confessed that, as yet, we employ this valuable class of remedies empirically; it not being known in just what manner they act. Here again is demonstrated the relation between the tonsils and rheumatism, as the efficacy of salicylate of soda, in some cases of follicular tonsilitis, is well known. In order to obtain the best and quickest results the salicylates should be pushed to the point of toleration. Large doses should be given every two or three hours at first, gradually diminishing the dosage and lengthening the interval of administration, as the symptoms subside. I believe that a great many cases relapse because of the too early discontinuance of the salicylates. In cases which show a tendency to run a chronic course after the subsidence of acute symptoms, I discontinue the salicylates and substitute iron and other general tonics. I have found the arsenate of strychnia, 1-37 gr. three times a day, to be a valuable adjuvant to my other treatment in cases which were proving obstinate. Recently the salicylate of strontium has come to the front as being of great value in cases where the other salicylates have disturbed the stomach. Of late several articles have appeared in the medical press advocating the local application of different combinations to the affected joints; but as these all contain salicylic acid in some form, it is difficult to see their advantage, except in cases where the stomach rebels against internal administration. Massage, while of use in chronic cases, I believe to be absolutely harmful in the acute conditions. While it may give relief at the time of its application, yet several hours afterwards I have seen a patient suffer intensely from apparently no other cause. This would seem to be the inevitable result, following friction applied to such highly inflamed tissues. I shall not speak here of the complications of rheumatism, as each requires its own special treatment. It will be readily seen that we have much to learn in regard to this affection, both as regards causation and therapeutically, and much honor awaits those who shall solve the problem.

EARLY OPERATIONS IN ABDOMINAL TROUBLES*.

By Edmund M. Pond, M. D., Rutland, Vt.
Surgeon to the Rutland Hospital; Consulting Surgeon to the Proctor Hospital.

The remarks I am about to make do not apply to all physicians, for the majority of men doing general practice are keen to make early diagnosis, and prompt to call surgical aid. Still there are many who do not make their diagnosis early and do not call surgical aid until the case is almost beyond human help. If you wish to be conservative, you must be prompt in diagnosis and early in operation. The general practitioner is sometimes apt to consider lightly surgical cases, saying, "I always call a surgeon for such work," and I will add, "often too late." The high mortality in abdominal troubles does not come from the operation, but from the delay in having it performed. How can you have an early operation unless you can make your diagnosis? How can you diagnose unless you are perfectly familiar with surgical cases? How can a surgeon diagnose unless he is equally familiar with medical cases?

I dare say there is not a man present but who can recall certain patients who would be alive to-day had there not been delay. Of course, delay comes often from the family, but the majority of the laity to-day appreciate the dangers of late operations, and will censure

* President's Address before the 90th Annual Meeting of the Vermont State Medical Society.

not only the surgeon who "kills the patient," but also the family physician who waited too long. To help things along and smooth them over, the newspapers add "so-and-so dies as the result of an operation," thus adding still more discredit to late surgical work. What should be the attitude of the surgeon to the general practitioner? Here is a common case A patient is taken suddenly ill with appendicitis, and the diagnosis is not made. To allay pain, an opiate is administered, and this repeated as required. In the morning the patient seems a little better, but still a diagnosis is not made, or the physician waits another day before calling a surgeon. The following day the patient is much worse, and the surgeon is called; he finds the patient with a rapid pulse, leaky skin, and a hard abdomen. Operation reveals the general peritoneal cavity, and system in general affected. There is profound collapse at the end of the operation, and the patient rapidly sinks, and dies, or, after a hard struggle full of pain and suffering, he makes a slow, tedious and imperfect recovery. Immediately after the operation the friends talk to the surgeon about this way: What are the chances? How do you find him? Was the operation early enough? Would it have been better if performed two days ago? Now, in the cited case,I ask was the operation early? Can the surgeon say to the family: "Yes, the operation was early, still there is no hope?" Can he risk his reputation, and try to convey to the family that it was in time, when he knows, as do also the family, that it was too late. No, he cannot do that; he must say: "The earlier the operation, the better are the chances." Such cases bring discredit to the surgeons, but they hurt the general practitioner far more. The laity expect that their family physician will protect them; that he will, if necessary, call a surgeon, and call him promptly, and if he does not, they will blame him. The surgeon is often called to operate upon delayed cases that are almost sure to die. Shall he operate? A very eminent surgeon said to me when we were discussing these cases: "I do not operate upon them, I simply say that it is too late." There is truth in this, still there are cases that seem almost hopeless in which recovery does occur. For this reason I think if the family desire an operation, after fully understanding the situation, they should have their wish gratified. I do not, however, think the surgeon should shield the general practitioner to the extent of making statements that are untrue. If the general practitioner delays, he should assume the responsibility.

What do we mean by early operation? Is it twenty-four hours, or three days? As I mean it, there is no stated time; in one case twelve hours is late, in another case three days is early, depending entirely upon the condition. Among the cases demanding earliest operation are those of perforation of the stomach, intestines, appendix, or gall-bladder. In stomach perforations there is often a history of gastric ulcer or gastric disturbance. I was called at noon to see a young man of about twenty-five years, a carpenter by trade. While working, he was suddenly taken with severe epigastric pain and collapse; the pulse was very rapid, the respiration catchy, and the face anxious. The abdominal muscles were tense, especially in the epigastric region, and a tenderness was present in the same region; but a little to the left of the median line there was loss of liver dullness. A diagnosis of perforating gastric ulcer was made, and he was urged to go to the hospital, only a block distant, and have an operation as soon as the first shock was over. He flatly refused, even after the consequences were explained to him. He continued to get worse, and the next morning his condition was hopeless. The family then requested an operation and this was acceded to, but no hope was of-

fered. When the abdomen was opened it was found filled with stomach contents and sero-pus. A perforation was found in the posterior wall of the stomach. This was closed and the abdomen was flushed and drained. The patient died twenty-four hours later. Very similar to this is the following: A servant girl, after a hearty evening meal, was taken with severe pain, vomiting and collapse; she was stimulated and made comfortable during the night. I saw her early in the morning in the following condition: The pulse and respiration were very rapid, the temperature was subnormal, the abdomen hard, distended and tender. There was a loss of liver dullness, the face was anxious and the eyes were sunken. A diagnosis was made of stomach perforation, and little hope was offered. Operation revealed a large ulcer; this was sutured, and a large amount of stomach contents and sero-pus was washed out of the abdomen; drainage was used. She died a few hours after the operation —that is, twenty hours from the onset of the symptoms. In this case fourteen hours was late. If you had a stab or gunshot wound of the stomach you would not wait fourteen hours, then why wait in a similar condition due to ulceration? It is surprising how rapidly infection follows perforation, and what a large amount of pus can form in a short time. A man of about thirty-eight years, a draftsman, had worked hard all day, and was as well as usual. After eating his supper, he was taken with severe pain in the abdomen and collapse. Morphine and stimulants were used. I saw him the following day at noon, fourteen hours after the onset. The pulse and respiration were very rapid, the face was anxious, the eyes sunken, and the body bathed in perspiration; the abdomen was distended, tender, and very hard. Liver dulness was absent. Gastric perforation was diagnosed, and the prognosis was death with or without operation. Operation was, however, requested. The gas in the peritoneal cavity was under such pressure that when the abdomen was opened, there was a distinct sound of explosion and pus spurted in every direction. In this case there were quarts of what appeared pure, yellow pus; of course, some of it was stomach contents. The intestines were fiery red and covered with patches of white lymph. The abdomen was flushed and drained, but the patient died a few hours later. This was a late operation. Intestinal perforations give very much the same history. A laboring man of middle age was taken while at work with pain and collapse. The pain was located over the appendix. I saw him twenty-four hours later. Collapse was marked; the abdomen was enormously distended, tender and boardy; the pulse was over 150. Operation was not advised. The symptoms were those of a large perforation of the appendix, and the location favored the diagnosis. Autopsy showed a small (typhoid) perforation of the ileum.

Another misdirected idea is that of interval operation for appendicitis. Of course, the patients that get well and are afterward operated upon in the interval give a very small death rate, but when you add to this those who die during the attacks while waiting, you have a much higher mortality than if you established the rule to operate in every case as soon as the diagnosis was made, and made the diagnosis early. Interval operations in a large hospital, or where the patient can be watched by experienced diagnosticians and trained nurses, may do, but for the country practitioner, they are dangerous, and he will lose more patients than if he adopted the other rule. I have seen so many lives lost by the waiting idea, that I am firmly convinced that every patient should be operated upon as soon as possible after the diagnosis is made. Some years ago, I was summoned one night to see in con-

sultation and operate upon, if necessary, a young lad of about twelve years. There was some discussion between the council, and part were opposed to operation, advising "to wait for an interval operation." It was a typical case of suppurative appendicitis with general peritonitis.I cite it simply to show that many good practitioners do not grasp the full understanding of interval operations, and I again emphasize that it is safer for them to adopt the rule to operate in all cases as soon as the diagnosis is made. To return to our case, upon opening the abdomen, pus was present everywhere. A gangrenous appendix was found resting on a coil of small intestines. It was so septic that where it came in contact with the intestines it had produced gangrene. About eight inches of intestines were black and gangrenous. A foot of small intestines was resected, and the ends stitched to the abdominal wound. The abdomen was flushed and drained, and the intestine was irrigated, and filled with saline solution and brandy. The patient recovered. Three months later the ends of the intestines were freshened and joined by a Murphy button. The boy is now perfectly well. This is an unusual condition. I have many times seen small areas gangrenous from contact of a septic appendix, but never before eight inches absolutely gangrenous throughout its entire thickness. You will all admit that the operation was late, and that it was not a suitable case for an interval operation.

It is not always possible to make a positive diagnosis at once, but you can take your symptoms, and by grouping and by exclusion you can soon decide the question: Is it safe to wait, or must the operation be done at once, regardless of the diagnosis? I saw a boy of ten who was taken suddenly sick with a pain in his abdomen. There was tenderness over the appendix, and the abdomen was distended. The muscles were rigid, but not hard. The temperature, pulse and respiration were all considerably elevated. It appeared like a well-marked case of appendicitis, except the muscular rigidity. Cough, however, was present that excited suspicion of pulmonary trouble, but examination of the lungs was negative. The following day the cough was more severe; an examination of the lungs showed pneumonia of the lower right lung. In this case it was twenty-four hours before appendicitis could be excluded and pneumonia diagnosed. Other chest complications may simulate abdominal trouble, and must be borne in mind.

In abdominal troubles there are certain symptoms common to all, varying somewhat according to the lesion and its severity. Pain, tenderness and muscular rigidity are present in almost all cases. Pain indicates a lesion. Tenderness tells where it is, and muscular rigidity shows nature's effort to protect the diseased areas. This combination always indicates trouble that should be watched with care. If over the appendix it is pathognomonic of appendicitis, and here you must remember that the appendix is not always in the same location; the left iliac, the right lumbar region, or the pelvis may be occupied by this uncertain organ. If the pain is over the gall-bladder, it is equally significant of gall-bladder disease; if over the stomach, it may mean gastric ulcer; if it is in the lower abdomen, just above the pubes or to one side, it is suspicious of tubal or ovarian disease. In the last named, a vaginal examination will often decide the diagnosis. A servant in my home, a young girl of eighteen, was apparently well; she had had two slight attacks of colic lasting only about a quarter of an hour, after which she was as well as usual. One day when doing her usual work, she was taken with severe pain in the epigastric region and collapse. Morphine and stimulants were given, and it looked as though

she would die at once. The pain was agonizing; the muscles over the abdomen were rigid, especially the right rectus in its upper half, and tenderness was most marked here. From the character of the symptoms, I thought at once of perforation, probably of a gastric or intestinal ulcer, or of an appendix pointing upward and usually high. Liver dulness was present, showing that there could not be much gas in the peritoneal cavity. While the symptoms were those of a perforation, the gall-bladder could not be excluded, as we had pain, localized tenderness, and muscular rigidity over a point midway between the navel and lower costal cartilages of the right ribs. There were the sudden and severe onset, collapse, a pulse of 140, and a temperature in a few hours of 105°; an anxious facial expression, and sunken eyes, rapid respiration, tympanitis, and constipation. The diagnosis was between an abnormally high located appendix that had perforated, a perforated gastric ulcer, or gall-bladder disease. There was no history to aid, no jaundice, no vomiting of blood, or stomach disturbance, no previous attacks of appendicitis or of uterine disease. The grouping of the symptoms left no doubt regarding the advisability of an operation. This was proposed and refused. For two days she improved, then suddenly became worse. She then consented to an operation. Upon opening the abdomen, a mass of adhesions was found. Upon breaking these up, a large tense gall-bladder appeared with a perforation in its posterior wall, this was covered by an adhesion of omentum. Upon opening the gall-bladder about fifty stones and a few ounces of pus were found. The largest stone was about the size of a large walnut. The gall-bladder was emptied and stitched to the incision, and the abdomen drained. The patient made a good recovery. The collapse evidently took place at the time the perforation occurred.

Another gall-bladder case of interest, from its rarity, is the following: A man of sixty-five was taken with an ordinary typical attack of gall-bladder inflammation, pain and localized tenderness were present over the gall-bladder, very marked muscular rigidity over the entire abdomen; the abdomen was like a board, but not much distended. He had been sick nearly a week, his temperature and pulse were running up, and an operation had been urged. He did not look, however, very sick. Upon opening the abdomen it was found full of bile and sero-pus, and all the intestines were red and covered by lymph; the gall-bladder was gangrenous, gray, green in color and perforated in many places. On removing the diseased parts, the gall-bladder was found to be so rotten that it was picked away with the fingers up to the common duct. It looked like a hopeless case. The abdomen was washed out, large strips of gauze were carried in various directions, and the wound was left open. Collapse was marked. The man, however, made a good recovery, and is now working hard each day. There are two things about this case: First, Mayo Robinson says that there is only one case of total gangrene of the gall-bladder, and that case ended fatally. Second, the extreme muscular rigidity was the symptom of warning, and when present generally means severe trouble.

Intestinal obstructions always demand prompt action; here hours count. Two symptoms are most pronounced, constipation and vomiting; these are also common in sepsis, but certain symptoms will always aid you in making an early diagnosis. These cases generally hold up until the last, and then go to pieces in a hurry. A boy of ten was apparently well Saturday. The evening of that day he was taken with colicky pain and vomiting; the bowels were constipated. He had an attack like this about a year before, and it was a week

before the bowels could be moved. Sunday the vomiting and pain continued, still the bowels could not be moved. I saw the patient Monday morning, thirty-six hours after the onset. The vomiting was regurgitant in character, brown and offensive with fecal odor. The abdomen was distended and tender; the face pinched, eyes sunken, pulse rapid and thready, respiration accelerated. The diagnosis was intestinal obstruction, and little hope was offered. He had failed very rapidly in a few hours. Operation was asked for by his parents. Upon opening the abdomen there was a gush of brown, offensive serum. Distended and collapsed intestines were soon found that led to a strangulation by a band caused by an old appendicitis. Several feet of intestines were found strangulated and gangrenous. An artificial anus was made. The boy died a few hours later—thirty-six hours after the onset—but too late for such a condition. In this case there was a history of a previous attack, and a recovery without operation. Because a patient has recovered once, twice, or more times from similar attacks, it is no sign that he will recover from the next, and you must not be misled or influenced by such a history.

Floating kidney sometimes give rise to severe symptoms, and as this is a very common condition, it should be borne in mind in making a diagnosis. A young woman of thirty-five was operated upon by me five years ago for acute appendicitis. At the time of the operation an ovarian cyst was found and removed. She made a good recovery. A year later she began to have pain in the epigastric region, tenderness, vomiting, and some fever. These attacks increased in frequency. Examination showed a freely movable kidney which, when displaced, occupied about the region of the gall-bladder, but nearer the umbilicus. Some jaundice was present. She was running down, the fever was getting higher with each attack, and the pain, tenderness and muscular rigidity were becoming greater over the right hypochondriac region. The urine contained hyaline casts, but aside from this was normal. Operation was advised. An incision through the upper right rectus muscle showed a mass of adhesions, a very large liver, and a distended gall-bladder. Pressure in the back threw the right kidney into the wound. The gall-bladder was opened and stitched to the wound. An incision was next made in the back, and the kidney, partially stripped of its capsule, was anchored, the wound being left open. The kidney was very soft and friable. This case was of interest because it so closely simulated gall-bladder disease, and, in fact, an eminent physician had diagnosed it as such, excluding floating kidney. Cases giving such a history should be operated upon early, not put off from year to year until the kidney is destroyed and the other organs injured by pressure. Gall-bladder cases give such good results that they should be classed among cases demanding early operation. There is no excuse for allowing a patient to go through life with gallstones that are giving trouble every little while. If they don't give trouble, they may be left alone.

The pelvic diseases demanding operation are many; operation in these cases is, as a rule, delayed too long, especially in the septic cases. We will pass by them, however, and consider a condition formerly thought rare, but now known to be common—that is, extrauterine pregnancy. I was called to see a case thought to be one of appendicitis. The woman had been sick about a week with tearing pains in the abdomen, associated with some collapse and tenderness and muscular rigidity over the lower abdomen. Examination showed the cul-de-sac occupied by a pulsating and fluctuating mass. There was a history of delayed

menstruation and irregular flowing; also of stomach and breast disturbances. Operation showed a mass of adhesions and blood-clots in the abdomen. After these adhesions had been broken up, an abdominal pregnancy was revealed. A full four months' fœtus was quickly removed with the placenta and cord. Hemorrhage was terrific, and controlled only by compression of the abdominal aorta and a firm compress of iodoform gauze filling the pelvis. A good recovery followed. Such patients are in the greatest danger, for a fatal hemorrhage may occur at any moment. I was called a short time ago to see a young woman who thought she had miscarriage. She had run over her period two weeks, was nauseated, and had breast symptoms; the flow started freely, and considerable pain was present. She had been flowing over a week, and the pains were more severe; a little elevation of temperature was present. I curetted considerable material from the uterus. Bimanual examination revealed a retroverted uterus, with prolapsed tubes and ovaries, one tube being somewhat enlarged. There was a history of two severe attacks of appendicitis, several years before. The patient improved for a week, when the flow returned and the pains increased in severity, being of a tearing character. A few days later another examination was made and the tube was found somewhat larger. A diagnosis of tubal pregnancy was made, and an operation was performed the following morning. Free blood, old clots and serum were found and removed. The appendix was adherent to it. The tube had not ruptured, but hemorrhage had taken place from the fimbriated end. The woman is now making a perfect recovery. These patients must be operated upon early, otherwise a great many will die, or, if they do not die, will have a long severe sickness before they recover, and the recovery may be only partial. You must consider that most of my reported cases have been severe ones. I could report many simple, mild cases that turned out to be equally severe, simply from waiting. Always treat a mild case promptly and carefully, and each year you will have less severe ones.

In closing, let me simply say, if you wish to do right by your patients who put their utmost confidence in you, diagnose and operate early. If you wish to be conservative and have a small death rate, diagnose and operate early. If you wish to be up to date and have the respect of the medical profession, and help its cause along, diagnose and operate early.

ECZEMA FROM THE VIEWPOINT OF THE GENERAL PRACTITIONER.*

By William Warren Townsend, M. D., Rutland, Vt.

Eczema is without doubt the most important skin disease that the general practitioner should be familiar with, for the reason that it is the most common. However strange it may seem, the general medical man in treating a case of eczema treats it as a case of eczema and not as a case of eczema presenting certain characteristic symptoms; in other words, not symptomatically.

Eczema is noted for its polymorphism. There are no two cases alike, and unless one is particularly interested in matters dermatological the particular stage of an eczema is not considered, and in consequence thereof the treatment prescribed is often at variance with the conditions presenting themselves.

The diagnosis of an eczema from other skin lesions is easy to make, as in other pathological conditions of the skin there are typical appearances that are always present, whereas in

* The January issue of *The Journal of Dermatology and Genito-Urinary Diseases,* also contains this article.

eczema the variety of appearances are due to different constitutional peculiarities; and then, too, the location of the lesions oftentimes influence the appearances. As, for instance, an eczema of the mammæ will appear different in the crease under the breast, owing to the coaptation of the two skin surfaces, the heat, friction and exudate causing an exciting and irritating influence.

Eczemas occur in acute and subacute forms, and these forms are subject to modification. A chronic eczema may take on an acute or subacute condition at different times. Piffard's classification of eczema designates most thoroughly the various types of the disease. He divides them into:

First—Erythematous.
Second—Vesicular.
Third—Pustular.
Fourth—Papular.
Fifth—Exfoliative.
Sixth—Fissured.

These general classifications are subject to further subdivision, according to the location of the lesion. As, for instance, we speak of an eczema of the scalp, of the anus, of the penis, of the mammæ, etc.; each of these special forms of eczema show areas of the general forms, i. e., erythematous, vesicular, pustular, papular, exfoliative, fissured, etc. Age has an influence on the course of an eczema. In childhood the disease will present a different clinical picture than in old age. This undoubtedly is due to the tardy cell function in the aged. It is unusual to see an eczema in the vesicular stage, *per se;* we generally see them in the combined forms, and areas of vesicles are found present with papules, postules and crusts.

There is no known reason why some individuals will have a pustular eczema and others a vesicular eczema.

Eczema exfoliatum is seen most frequently, and the period of dry, scaly exfoliation is known as the squamous stage. Scaly exfoliation leaves behind a hyperemic, indurated skin, which is very rebellious to treatment, and it is this induration that prompts the writing of this paper, for an agent that will re-establish a normal keratinization is one to be hailed with joy.

In the consideration of the etiology of eczema for some time dermatologists were divided into two factions, both factions being the students of eminent teachers. Hebra and his followers believed that eczema was due to external influences entirely, and that internal conditions played no part whatsoever in the consideration of the disease. The French school, headed by Bazin and Hardy, held the opposite view, contending that internal derangements alone produced the eczema.

As is usually the result when earnest workers along certain lines thrash out from a large clinical experience certain facts, and then offer them up to other investigators, there must some good come from them; and it was eminently so in the study of the etiology of eczema. Both of those workers were correct in their theories as far as they went, and the result is, modern authorities agree that both external and internal conditions act as causative factors in eczematous conditions.

H. G. Piffard, in "Morrow's System of Dermatology," sets forth what I believe is acknowledged to be the etiological theory of eczema in the quotations which follows:

"In the writer's opinion, the fundamental cause of eczema lies in a constitutional derangement or diathesis, hereditary or acquired, of an infinite duration. I believe, further, that it is directly due to the retention and accumulation in the blood of an undue amount of certain excrementitious substances, which, under normal conditions, would be removed by the kidneys or other excreting organs as fast

as formed. When we consider the complicated processes which are comprehended under the names digestion, assimilation and disassimilation, and remember that at best we possess but an imperfect outline of the different changes which intervene between a morsel of food taken into the mouth and the diverse and complex forms in which it finally leaves the body, we are certainly not in a position to dogmatize as to the precise chemical changes which have taken place. We know, however, that after the various digestive juices have rendered the food fit for absorption, this food in its changed form enters the vessels and is conveyed largely to the liver, where it undergoes still further chemical changes, mainly in the direction of oxidation. Leaving the liver, it is conveyed to the various tissues for their direct nutriment, and having served this purpose, it is ready to be discharged from the organism. If, now, at any stage in this cycle, there be a hindering of the oxidizing processes, there will necessarily be an accumulation in the circulating fluid of substances which have not been rendered quite fit for nutriment, or, having served as such, have not undergone the changes which are necessary to render them fit for excretion. A single example of this may be cited in the history of the proteid substances taken into the body, and their final elimination under the form of urea. We know that if urea itself is unduly retained in the system, we will have the symptoms of grave intoxication; and we also know that if uric acid, which is less highly oxidized than urea, accumulates in excess of the normal amount, other disturbances (less immediately serious, perhaps) will ultimately supervene. Now, besides these two bodies, urea and uric acid, the blood contains a very considerable number of others, all less highly oxidized than urea, but whose function or purpose has not yet been revealed to us. It will be readily conceded that if, from any cause, the processes of oxidation are curtailed, there must necessarily be an undue proportion of suboxidized products in the blood. Under these circumstances the kidneys, which are the main excretory organs, will of course be called on to do more than their share of the work of depuration; and, if they fail to do it, there will be an excessive accumulation in the blood, and these suboxidized bodies may then very readily give rise to irritation of the skin as well as of other organs. If now, we accept the view held by many, that the liver is the principal organ concerned in oxidation, we throw back the ultimate cause of an eczema to deficient functional activity of this organ, especially in its relations to oxygenation. Clinically, we have much to support this view, for in a large proportion of cases of eczema we will find more or less derangement of the hepatic functions.

An examination will show that the kidneys and liver are primarily at fault in exciting the disease under consideration, and this fact must be borne well in mind in determining the line of treatment in a given case. The treatment, as will be seen, must be internal as well as external; and external treatment must be protective as well as curative. Internal medication must be directed to the organ which is at fault, whether it be liver or kidneys, and a correction of its faulty action will accomplish a good deal in the way of treatment. Hygienic environments must be interrogated and corrected when found wanting. Calcium sulphid, arsenic, and viola trycolo are sheet anchors which can be relied upon to perform their special actions. Various forms of external treatment have been and are exploited from time to time, and ointments, powders, plasters and lotions are too numerous to mention, and particularly so in this short paper.

As the title implies, this paper is written for the benefit of the general practitioner, by

a general practitioner who has had numerous cases of eczema that have puzzled him, which after being "analyzed" by a dermatologist and proper treatment suggested, the recovery was rapid.

Now the point I wish to convey is that the various types of eczema call for various forms of treatment. External treatment must be protective and curative. Protective treatment can be accomplished by any one of the common unguents, ung. zinci sulf being the best and most commonly used. All external applications in the form of ointment should be spread on the common salve muslins. White precipitate ointment has its field of usefulness, fulfilling a twofold action, that of a protective dressing and a curative agent.

As stated, eczema is a polymorphous condition, and in order to fulfill the ideal therapeutic requirements of the whole lesion the application should consist of ingredients that exert a beneficial action to the whole and not to a part. As, for example, all the text-books will advise us that while tar is a most valuable agent in some types of eczema, in others its influence is irritating. "The most expert dermatologists have had a disappearing eczema revived into new life by such an error," writes Dr. Bruno Skalarer in the *Therapie der Gegenwart* of July, 1903, in his article on a preparation of Pix Liquida.

As yet the ideal ointment is to be compounded. If one believes one-half of the claims put forth by the proprietary medicine manufacturers, his or their special ointment fulfills all the requirements and is the panacea for suffering eczematous patients.

The ideal dressing in routine work I think should consist of an ointment (it is most convenient of application) that is sufficiently sedative to cool and soothe the inflamed epidermis; one that is antiseptic (mildly so) and astringent, and one that has as its base a preparation that allows of easy pliability, miscibility and decided penetrative ability.

An ointment containing acidum-boricum, acidum-salicylicum, oleum eucalyptic, camphor, phenol, thymol in the desired proportions, rubbed up with lanoline, petrolatum, zinc oxide and menthol would fulfill all these indications.

The combination of menthol, thymol, camphor and adeps lannæ seem to exert a powerful influence on the induration mentioned before in this paper, and their influence is more noticeable in promoting absorption than if any of the agents are used alone. The abundance of cholesterin in lanolin keeps the skin and its appendages soft and pliable so the other medicaments used are readily absorbed.

This combination of drugs has proven most successful for routine work and I feel sure if given a trial in rebellious cases it will be of decided benefit.

MALARIAL FEVER IN CHILDREN: ITS DIAGNOSIS AND TREATMENT.

By J. Smithline, M. D., Bayonne, N. J.

While opinions differ as to whether children are more or less liable to suffer from malaria than adults, the truth is in all probability that the liability is the same. Malaria may occur at any age, and has been observed eighteen hours after birth, which proves that the infection must have been intra-uterine.

In regard to the diagnosis of malaria in childhood, we must agree with the older writers on this subject, that the disease is more frequently overlooked at an early age than in later life, because its manifestations are more irregular, and this has often led to the belief that children are less susceptible than adults, a view, however, in which the writer does not share.

It is my desire in this paper to discuss the disease especially as it occurs in children and the difficulty sometimes encountered in making a diagnosis. It is known from clinical observations that in children over the age of about six years the symptoms of malarial infection differ in no essential degree from those observed in adults, but in infants and very young children where the paroxysms are less regular, the mode of onset more insidious, and the risk to life greater, the diagnosis is not always easy, especially in the case of estivo-autumnal fever. It is well known that the blood examination will settle the question, but it should not be forgotten that sometimes the symptoms in a young child are so masked and irregular that you will not feel sufficiently impressed that it is a malarial case to make such an examination. The busy practitioner, especially, is apt to omit a physical examination or to make it hastily, and often fails to inquire into the history and to consider the patient's environment. Cases with masked or irregular symptoms more frequently lead to a mistake in diagnosis than those of true malarial cachexia. Amongst the most irregular forms seen by the writer in young children the most common is that affecting the nervous system, as evidenced by headache, usually frontal, and when severe accompanied by vertigo or drowsiness, vomiting and constipation, which may lead you to suspect that you have to deal with a case of tuberculous meningitis. In other cases children will complain of pain in the lower limbs or in the region of the liver and spleen, moderate fever, and persistent vomiting. In infants particularly I have observed in connection with malaria an acute pulmonary congestion, which may give rise to obscure and often very alarming symptoms. The onset here is acute with vomiting and prostration, high temperature, cough, rapid respiration and often slight cyanosis. On examination of the chest I have found feeble and in others rude respiration over one, or sometimes over both lungs behind, and some coarse rales. These symptoms may disappear in the course of a few hours with the fall of the temperature, to return with the next paroxysm, or if quinine is given, subside entirely. Such groups of symptoms have often led to an erroneous diagnosis of pneumonia if the physician is not careful in his examination. I have also seen a young child suffering with malaria in whom the attack began with great prostration, vomiting, fainting, and cold hands and feet instead of a chill. When the hot stage set in the temperature rose to 106° with convulsions, and after a few hours the child became prostrated again; cold hands and feet and fainting, this taking the place of the sweating stage.

The variety of malarial fever seen most often in young children is the quotidian type; but the paroxysms are not so well marked, and the remissions are less complete than in a typical case in an adult. Ordinarily, instead of the rigor, the child vomits, becomes blue about the lips and finger nails, and is peevish or somnolant, or occasionally a convulsion is the first symptom. Frequently, however, the first stage is so little marked that the infant is not thought to be ill until the febrile stage sets in, when the face becomes flushed and the temperature rises to 104°. This stage often lasts from two to eight hours, when the temperature falls, but not always to normal. Perspiration usually sets in at this stage in adults, but is seldom or never observed in young children or infants. The spleen after two or three attacks will be found to be enlarged in nearly all cases of pure malarial cachexia. The pernicious forms of malaria appear to be comparatively rare in children.

On the ground of my observations of malaria in childhood I base my diagnosis upon the following points, aside from the finding of

the hematozoa in the blood: The history of the case; residence of the patient in a malarial district; the periodicity of the symptoms; the enlargement of the spleen, and the usual complaint of pain in that region; the effect of quinine and the exclusion of other conditions which could account for the fever or other symptoms. The physician should be guarded in giving his opinion during his first visit unless he feels positive as to the existence of malarial fever.

Treatment.—For the paroxysms in most instances all that can be done is to render the patient as comfortable as possible while he is passing through its various stages. Symtomatic treatment should be employed as in all acute febrile diseases. In the cold stage stimulants or a hot bath may be required. Some recommend sinapisms to the body in order to irritate the cutaneous surface; others assert that if an adult is brought fully under the influence of alcohol, the regular development of a paroxysm can be prevented. The writer's experience has shown that applying hot water bottles to the body, covering the patient with blankets, and giving small quantities of old brandy in tea enough to stimulate, has shortened the cold stage. During the hot stage I order ice to the head if the temperature is above 103° and a hot water bottle to the feet, the patient being covered with a light sheet, and frequently sponged. The bowels should always be opened freely by calomel.

In regard to the internal administration of drugs for the fever, and for preventing the occurrence of another paroxysm, we know of nothing better than the sulphate of quinine. A patient should never be allowed to have a second intermittent paroxysm, for if the system once becomes accustomed to these attacks they will be repeated on the slightest provocation. Our knowledge of the anti-periodic power of this drug is purely empirical. The modes of the administration of quinine are varied, and so is the dosage. Quinine muriate may be given in solution gr. 1 to the drachm of water, according to the age of the patient. Adults receive ten grains of quinine muriate ten minutes after the sweating stage, and 20 grains two hours before the beginning of the next paroxysm. If given to children from two to seven years old the taste of quinine must be concealed, and there are various ways of doing this. I have tried various methods without succeeding in hiding the taste. I have mixed the aqueous solution of quinine with syrup of yerba santa, compound syrup of sarsaparilla, and syrup of orange. I have also used the tannate of quinine covered with chocolate, and all proved unavailable. Besides my inability to conceal the taste of quinine for my little patients, I have often observed unpleasant after-effects. I have not infrequently had an adult complain bitterly that after taking ten grains of quinine at one dose, he experienced ringing in the ears, fulness in the head, and slight deafness. Other parties complain in addition to the above symptoms of disturbance of vision, giddiness, intense headache, impaired digestion, and a very coated tongue. Not long ago a patient asked me whether he should consult a specialist for ear disease or nervous disease for symptoms due to too much quinine in the system. In children you will find the same physiological after-effects and somewhat more marked. The vomiting in children after taking a dose of quinine is somewhat terrific. Many times I have had occasion to witness a scene where, because of its refusal to take the nauseous medicine, the poor child would be chastised and scolded until it became exhausted. I then realized what a torture it is to persuade a child to take quinine, with the probability that before it was in the stomach fifteen minutes it would be vomited. I feel assured that many

of my colleagues have gone through the same experience and that they felt like I did.

Attempts have been repeatedly made to replace quinine by various derivations and for the last few years several products of cinchona have been introduced as tasteless quinine. All of these have failed to prove to be satisfactory quinine substitutes in my practice and were soon abandoned by me. About a year ago my attention was called to the salicylic acid ester of quinine, or saloquinine. In view of my unsatisfactory experience with the former preparations I was somewhat reluctant to give it a trial, but after convincing myself of its tastelessness, I began to prescribe it in malarial fevers of children as well as adults, and with results so remarkable as to merit notice. To children from two to six years of age I gave it in powder mixed with a jelly and spread on a small piece of soda cracker or bread, while sometimes it was mixed with water or sweet tea. It was a pleasure to see how readily it was taken without the least gastric disturbance. There was no vomiting, the child did not have to be forced to take the drug as with quinine, and there was no after-effects. Under its use the disease subsided as rapidly as under the administration of quinine. This preparation is working magic among my little patients, and adults are equally pleased with it. A patient consulted me not long ago in regard to his chills and fever. I found him to be suffering from a severe attack of malaria. While prescribing for him the patient requested me not to give him quinine as its previous use had deafened him for a week, and crippled his stomach for a month. I prescribed saloquinine in ten grain doses to be placed on the tongue and followed by water, three times a day, and fifteen grains two hours before the chill. I did not see him for two weeks, when he told me how well he felt, without any unpleasant effect from the drug. When I informed him that he had taken quinine in a masked form he looked amazed and would not first believe me.

To further illustrate my experience I have selected the following cases from my records:

Case I. J. B., 4 years old, was attacked with sudden vomiting and fever. The history given was that the child felt much prostrated, looked pale, and had cold feet and hands before the onset of the fever. The patients resided in a malarial district. When seen the temperature was 104°: the child peevish, the tongue coated, and the bowels constipated; the spleen was found much enlarged and painful. Saloquinine was prescribed in 5 grain doses, mixed with jelly and spread upon a soda cracker. It was directed to be given every two hours until the temperature fell, and then continued every four hours. I also gave a dose of calomel, and advised sponging during the existence of the fever with ice-pack to the head and a hot water bottle to the feet. At the end of four days the fever had entirely disappeared; all the symptoms had improved and the child was asking for food. Saloquinine was continued for two weeks more, when the case was perfectly cured.

Case II. A. B., aged about two years, presented the following symptoms: Temperature 105°, vomiting, constipation, coated tongue, pain in the epigastric region and lower limbs. On examination the spleen was found enlarged, but the other organs were in a normal condition. The mother stated that before the onset of the fever the child felt faint, the lips were blue, and that the decline of the fever was followed by slight sweating. A diagnosis of malaria of the quotidian type was made, and saloquinine prescribed in 3 grain powders, to be stirred up in sweetened tea, every two hours, and preceded by a calomel purge. During the febrile period the same measures were ordered as in the preceding case. After tak-

ing the drug the fever did not return until the end of three days, and had completely subsided at the end of three weeks, when I dismissed the case cured. During the administration of saloquinine there was no vomiting or after-effects.

Case III. M. W., aged six years, had suffered for three months with malaria of the quotidian type. The child looked anemic and emaciated, and was unable to stand on its feet. The mother said she had doctored it for the last ten weeks and it seemed to be getting worse. Every dose of quinine, however, produced violent vomiting, and was followed by unpleasant after-effects from what had been absorbed. Saloquinine was prescribed in 5 grain doses every four hours, stirred in sweetened water. At the end of ten days there was a surprising improvement. The type of fever had been changed, the attacks occurring every three days, but the vomiting had ceased, and the child asked for food. The drug was continued, being given twice daily. At the end of four weeks the fever still recurred once a week, but the temperature was never high. Saloquinine was continued in tonic doses, and the fever failed to return.

These cases are illustrative of a considerable number, and it is therefore unnecessary to add further details. It is in children that we encounter the greatest difficulty of administering bitter preparations of quinine. Thus far in my experience I have not observed any unpleasant effects from the tasteless saloquinine.

My observations with saloquinine would demonstrate that it deserves a fair impartial trial in the hands of the profession, and especially in pediatric practice.

CHRONIC NASAL CATARRH—A SIMPLE AND EFFECTIVE TREATMENT.

By G. A. Gilbert, M. D., Danbury, Conn.

We feel inclined to report this case here not only because of the marked and speedy results obtained from the simple plan of treatment adopted after the usual measures had been tried and proven ineffective, but because of the frequency with which the particular group of symptoms complained of by this patient confronts the general practitioner in his everyday work.

Lena D., a young Miss of 18, had been a sufferer from chronic rhinitis or pharyngo-nasal catarrh for more than ten years, being subject to periodical attacks of coryza and tonsilitis, especially during the spring, fall and winter months. The mucous membrane of throat and nose became habitually flabby, congested and swollen.

At the age of twelve, the characteristic thick, indistinct speech and stertorous breathing of the catarrhal subject became manifest, while at the same time, the plugging of the pharyngeal opening of the eustachian tube by the thickened mucous secretions gave rise to slight deafness.

The treatment throughout had consisted of insufflations of the nasal antiseptic powders, ante- and post-nasal douches with the modern germicidal solutions, while various astringent or disinfectant gargles and sprays were used for the tonsilitis, but these gave only temporary relief. It was apparent that only the membranous surface was thus freed of its obnoxious discharges and not the deeper submucous tissues and gland sacs which harbored (unwillingly) the germs that gave birth to these discharges and it became self-evident that some more active method of treatment must be adopted.

In dental surgery, it is well known that an antiseptic solution having an alkaline base is the most effective for cleansing the mouth of putrefactive material arising from fermented food (starch particles in the substances adhering to the teeth), as well as that caused by the bacteria of dental caries, leptothris buccalis, etc. This fact is explained on the chem-

ical ground that the alkaline base readily combines with these various weak acids with which it comes in contact, thus breaking up the solution and liberating the oxygen or oxidizing agent upon which its disinfectant properties depend. In a word, such an alkaline agent dissolves the mucous secretions and weak acids which form in the mouth.

Were the foregoing all that is required of an antiseptic, nothing further would need to be said, but it is essential that the bacteria hidden more deeply within the walls of the gland sacs should also be removed. Recognizing the force of the suggestion recently made by scientific investigation, i. e., that a true alkaline germicide dissolves the bacterial envelope instead of coagulating it as do the acids and that if the specific gravity is favorable to low exosmotic action it will be absorbed into the surrounding tissues and gland sacs where the germs are hidden, it at once occurred to us that an alkaline agent of this character was just what was needed.

Feeling convinced that an alkaline antiseptic was strongly indicated in this case, the best of its kind, Glyco-Thymoline, being selected, was applied thoroughly once every day by myself and three or four times daily by the patient. A 25% watery solution (warm) of Glyco-Thymoline was made by me and applied in a fine spray to the post-nasal chamber by means of a hand atomizer. The nozzle was turned up at the end so that when introduced well back into the pharynx the spray was thrown upward direct into the post nares.

The patient herself soon learned to operate the post-nasal douche satisfactorily and was instructed to spray the parts in this manner twice daily, besides applying the solution (in the same strength), with the K. & O. douche. At the same time an ounce of a 50% solution of Glyco-Thymoline was gargled and used as a mouth wash three times daily for the purpose of hardening the flabby, congested tonsils.

The outcome of this simple plan of treatment soon made plain the fact that a germicidal agent was being employed in this case which possessed the alkaline and solvent properties already mentioned as being essential to success. The patient's general system had first been thoroughly purged of retained waste by way of kidneys and bowels, after which the local treatment was adopted as above described. This latter procedure was not only effective, but the antiseptic proved very agreeable to the patient who for the first time in several years experienced the sensation of possessing a clean, sweet mouth.

The hypertrophied membrane itself grew almost normal in appearance, distinctness of speech and hearing was gradually restored, the breathing became natural, and at the end of three months we had accomplished a speedy and perfect cure.

NEWS, NOTES AND ANNOUNCEMENTS.

Burlington and Chittenden County Clinical Society.—The regular meeting was held at 162 College Street, third floor, Thursday, March 24, at 8.30 P. M. Following was the programme:

The management of Cancer of the Uterus in its various stages,

Dr. A. Lapthorn Smith, Montreal.

Discussion opened by Dr. D. C. Hawley.

Refreshments were served at the close of the meeting.

Dr. Smith's paper was eminently practical and supplied many ideas for thought and discussion.

Washington County Medical Society.—About thirty-five members of the Washington County Medical Society gathered at Montpelier, March 8th, for the regular quarterly meeting. They dined at the Pavilion as guests of the Montpelier physicians and held

their meeting at the supreme court room at the State House in the afternoon. An interesting feature of the proceedings was a paper by J. E. Cushman of Burlington, on "The Legal Status of Physicians and Patients," which was discussed by Dr. A. B. Bisbee of Montpelier, and Dr. H. S. Carver of Marshfield. Dr. L. W. Burbank of Cabot read a paper on "One Hundred Confinements," which was discussed by Dr. J. H. Judkins of Northfield, and Dr. F. M. McGuire of Montpelier. Dr. J. S. Deziel of Barre, discussed the last paper of the afternoon on "Insomnia," read by Dr. Clayton K. Andrews of Waterbury. Dr. and Mrs. H. Edwin Lewis of Burlington, were the guests of the Society.

Rutland Hospital Meeting.—The annual meeting of the incorporators of the Rutland City Hospital was held recently at the Rutland County National Bank. According to the President's report last year was the most successful one in the history of the hospital. During the year 147 patients were cared for, 19 of whom were city patients who received an aggregate of 116 days' treatment. The Treasurer's report showed the total receipts for the year to be $7,621.39, and the expenditures $6,862.06. The deficit, which on March 1, 1903, was $2,253.12, was reduced during the last year $759.33, leaving at March 1, 1904, $1,493.79. The members of the old board of directors were re-elected. They are: Mr. Field, Mr. Chaffee, Dr. C. S. Caverly, the Rev. N. Proulx, T. W. Moloney, Dr. C. A. Gale, E. C. Tuttle, F. P. Gilson and E. R. Morse.

Death of Dr. D. P. Webster.—Dr. Dan Peaslee Webster, aged 57, died at Poultney, March 13, of Bright's disease after a long illness. He was a native of Northfield and graduated from the Medical Department of the University of Vermont and began practice in Putney when only twenty-one, and sixteen years later went to Brattleboro, where he continued in his profession with great success until after his appointment as postmaster in 1898. He was reappointed to this office in 1902.

Dr. Webster was representative in the legislature from Putney in 1872 and 1874, and senator from Windham county in 1878. He was surgeon-general on the staffs of Governor Asahel Peck and Governor Levi K. Fuller, and was selectman of Brattleboro for several years. He was one of the most prominent Masons in the country. He was Grand Master of the Grand Lodge of Vermont from 1876 to 1881, was Eminent Commander of the Grand Commandery in 1902, and had been advanced to the 33° of the order. He was twice married and is survived by his second wife, daughter of Judge E. L. Waterman of Brattleboro, and a daughter and two sons by his first wife. The eldest son, Harry, is assistant treasurer of the Vermont Savings Bank of Brattleboro.

Dr. Webster was with his father, the Rev. Alonzo Webster, chaplain of the 16th Vermont Regiment during the battle of Gettysburg.

STOP THE PAPER.

"I've stopt the paper, yes, I hev;
I didn't like to do it.
But the editor got too smart,
And I allow he'll rue it.
I am a man as pays his debts,
And I won't be insulted,
So when an editor gets smart,
I want to be consulted.
I took his paper eleven years,
An' helpt him all I could, sir,
An' when it comes to dunnin' me,
I didn't think he would, sir.
But that he did, an' you can bet
It made me hot as thunder.
Says I, 'I'll stop that sheet, I will,
If the cussed thing goes under!'
I hunted up the measly whelp
An' for his cunnin' caper
I paid eleven years an' quit!
Yes, sir, I've stopt his paper!"—*Ex.*

The Vermont Medical Monthly.

A JOURNAL OF REVIEW, REFORM AND PROGRESS IN THE MEDICAL SCIENCES.

H. EDWIN LEWIS, M. D., *Editor.*
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Burlington, Vt. March 25, 1904.

EDITORIALS.

RADIUM.

So much has been written about radium of a sensational character that it is really hard to tell what to believe in regard to this remarkable element. Metallic radium has not been isolated as yet, and the product on the market is a salt known as the chloride of barium and radium. The salt varies in its percentage of elementary radium, and accordingly its radioactivity is very variable. The rays which emanate from radium salts are similar to the X-rays of Roentgen, but no preparation thus far prepared has possessed anywhere near the penetration of the rays given off by a Crooke's tube. Consequently radium has proven useless for radiograph work and for this purpose the element will probably never be employed to any degree.

Therapeutically the emanations from radium have proven of value, although it is too early, and the chemistry of the salts is too uncertain to warrant any very sweeping conclusions. The rays from radium have been used with varying degrees of success in treating malignant growths and many diseases of the skin; and some observers have published enthusiastic reports, but these must all be accepted with caution. The world is too prone to follow fads and startling theories, and while there is no doubt of the wonderful character of radium, conservatism is the wisest course. The discovery of this metal opens up great possibilities, but we should not be too ready to accept the claims of blind enthusiasts. Time will demonstrate the true therapeutic value of radium in medicine and the world can well afford to wait until we know more of the physics and chemistry of this wonder of the twentieth century. In the meantime every quack or unscrupulous practitioner who can get a fraction of a grain of the chloride of radium and barium will take advantage of the sensational newspaper reports to catch the ignorant and foolish.

RHEUMATISM.

The article in this issue on Rheumatism by Dr. Hussey is very interesting and instructive. Dr. Hussey is a graduate of the University of Vermont, Med. Dept., and a young practitioner who is winning remarkable success in his chosen field. His paper well exemplifies the trend of thought in regard to rheumatism and its etiology. We may expect any day the announcement of the discovery of a specific germ as the cause of rheumatism. When such discovery is confirmed we may be very close to complete control of a disease which is responsible for a large share of the chronic ailments that affect mankind.

MEDICAL ABSTRACTS.

THE ETIOLOGY OF RHEUMATIC FEVER.—The recent work of Shaw* again calls attention to the problem of the microbic etiology of acute articular rheumatism or acute rheumatic fever. This has been a vexed problem

* Jour. of Path. and Bact., 1903, ix, 158.

for many reasons. As will have become apparent to the readers of *The Journal* in which this subject has been discussed many times, there have been various views held as to the cause, some proceeding from a purely *a priori* standpoint, others based on more or less imperfect evidence. The older view that a metabolic or autotoxic process was responsible has lately been largely supplanted by the microbic intoxication or infection theory, having as its basis the analogies found in other infectious disease and also certain bacteriologic findings. The views which have been held concerning the microbic cause are: 1, That it is a toxic disease caused by the absorption of bacterial toxins from a local point of infection (presumably the throat); 2, that it is microbic but not specific, more than one micro-organism being able to cause the disease (staphylococci and streptococci especially); 3, the now almost abandoned idea that the large anthrax-like bacillus of Achalme is the cause; 4, that a diplo-streptococcus is the cause; and 5, a specific micro-organism suspected, but its nature not known or proved.

Staphylococci have been recovered from cases of rheumatism by Guttman (1892), Sahli (1892), Singer (1894); staphylococci and streptococci by Singer; the bacillus of Achalme by Achalme (1891), Thiroloux (1897), and Triboulet and Coyon in two cases; streptococci, or a diplococcus considered to be a form of alteration of the streptococcus, by Netter (1892), Dana (1894), Charrin (1894), Buss (1894), Triboulet and Coyon in five cases, Apert and Triboulet in eleven cases, Westphal, Wasserman and Malkoff in one case, Poynton and Paine (1900) in eight cases, Beaton and Walker (1903) in fifteen cases. Menzer has also recently carried on extensive investigations in serum therapy with streptococci cultivated from the tonsils of rheumatic fever patients. It is thus seen that evidence has accumulated in favor of the streptococcus (diplococcus) etiology of the disease. Animal experimentation has also been encouraging with this organism as derived from a number of sources, particularly with inoculations into rabbits. Triboulet obtained changes in the endocardium, pericardium and joints similar to those found in a man in rheumatic arthritis. Wasserman, in a remarkable series of eighty rabbits, obtained similar lesions with a streptococcus cultivated from a case of post-rheumatic chorea. The experiments of Poynton and Paine, Beaton and Walker, and finally of Shaw, have been confirmatory. In studying the reports of the disease as produced in rabbits, its close resemblance to the rheumatic fever of man, both in the essential lesions and in the so-called complications, is striking. The arthritis is wandering and non-purulent, and the valvulitis, endocarditis, pericarditis, myocarditis and pleuritis are said to be identical with the similar human lesions. One of Shaw's rabbits developed an acute iritis on two occasions. The micro-organism has been recultivated from all these foci, and in several instances the disease again produced by inoculation of the secondary cultures into other animals. Shaw performed two apparently successful inoculations on monkeys.

Confidence is transformed into confusion to a certain extent when one turns from these results to the report on 270 cases of acute articular rheumatism occurring in the Johns Hopkins Hospital, where the cultural attempts were almost uniformly unsuccessful. It seems improbable that the disease could have one cause in England and another in America, but it is quite possible that differences in technic or culture media would explain the radically different results.

Although the results quoted above seem very promising, experience dictates that a cer-

tain amount of reserve is indicated in regard to them. The possibility of a secondary contaminating microbe occurring more or less constantly in a disease must always be kept in mind. The confusion caused by streptococci in the circulating blood in scarlet fever serves to emphasize this possibility. Then, again, while the reproduction of the disease in an animal experiment is of the utmost confirmatory value in establishing the microbic etiology of a disease, it can not be considered proof positive in all cases. We can never assume that the susceptibility of one animal will be equal in degree or character to that of another; the animal may not be susceptible at all, or the reaction may involve entirely different tissues. On the other hand, this test has at times been apparently successful, and still wrong conclusions drawn, as the results of animal experiments with various micro-organisms cultivated from syphilis testify.

While these criticisms may not hold eventually in regard to the diplococcus of rheumatic fever, the negative results among the Johns Hopkins cases make further confirmatory work necessary. It would seem that the optimum culture medium should be determined, likewise the optimum period of the disease for obtaining cultures.—*Jour. of the A. M. A.*

Rheumatism.—J. P. Williams of the *Virginia Medical Semi-Monthly,* asserts that rheumatism in children derives its chief importance from its relation to cardiac disease; cardiac complications are very frequent, and to avert their dangers during an attack of rheumatism or to limit its extent, two things should invariably be insisted on. First, confine the patient to the house and in a warm room. Second, if fever is present, keep the child in bed while it continues, even though it may never be above 100° F. Absolute rest and equable temperature are unquestionably of more importance than anything else in protecting the heart during a rheumatic attack. Aside from these measures the treatment of rheumatism in children is very much like that of an adult. In most acute attacks the salicylate of sodium, oil of wintergreen or salicin should be given. Alkalies should be given in all cases especially those with hyperacidity of the urine. Afterward general tonics such as iron and cod liver oil should be given.—*Cleveland Med. Jour.*

STRAY THOUGHTS.

If you can't make a living out of medicine by your medical skill, go into some other line of work. Don't try to hang onto practice by toadying to patients, working the church, or dressing up to the theatrical ideal of a doctor. —*Dr. A. L. Benedict.*

The Fear of Being Thought "Queer." —The fear of being thought peculiar prevents a great many people from reaching the limit of their possibilities. These people can endure unmerited blame, and even calumny, with fortitude. They are patient under great trials, and are not afraid to face difficulties, noble in many ways, and weak, perhaps, only in this one point. Fear of ridicule, of being thought different from other people appears to be the one vulnerable spot in their armor. They seem unable to rid themselves of the idea that they excite comment everywhere because of their supposed peculiarities.

Nine times out of ten, this "queerness" is a disease of the imagination, and has no real existence. The victim of such a morbid condition of mind must be his own physician. The veriest tyro in the world's ways must know that men and women are too busy with their own affairs, too much occupied with selfish cares to think much about him, whether he is like or unlike other people of his acquaint-

ance. Rest assured they are not watching you or analyzing your words and movements. Be your natural self as far as you can, and do not trouble yourself about what others think or say of you. Do what you think to be right, and give yourself no concern as to what others think of your words or actions, and you will find that your "queerness" will soon fall away from you.—*Success.*

MEN CALL IT FATE.

A child was born where Wealth and Comfort dwelt,
And both its parents joyed.
And when they knelt
They thanked their God for answering thus their prayer,
And thought that they were blessed beyond their share.

Another child was born the selfsame day,
To humbler parents struggling on their way,
But they both cursed the little stranger there,
Which made their burden harder still to bear.

The years sped by. The first child, nobly born
Had reached the age of manhood's early dawn.
A mother's love had guided him thus far,
And on his brow there was no sinful scar.
But when the world swept by and he was thrown
Upon himself to win the fight alone,
His heart proved weak, no mother's love could save,—
The child of wealth went to a drunkard's grave.

Th other child, unknown to mother care,
Was reared from youth where Sin long had its lair.
He knew no God, for he had ne'er been told,
And those around him only worshiped gold.
Yet in his heart he longed for something higher,
And strove by steady work to leave Sin's mire.
He fought full well, and when he passed away,
His country mourned his loss for many a day.

Why was it thus? No one can really state,
But tales like these make men believe in Fate.

L.

BOOK REVIEW.

INTERNATIONAL CLINICS.—A Quarterly of Illustrated Clinical Lectures and especially prepared articles on Treatment, Medicine, Neurology, Surgery, Obstetrics, Gynecology, Orthopedics, Pediatrics, Pathology, Dermatology, Ohpthalmology, Otology, Rhinology, Laryngology, Hygiene, and other Topics of Interest to Students and Practitioners by leading members of the medical profession throughout the world. Edited by A. O. J. Kelly, A. M., M. D., Philadelphia, U. S. A., with the collaboration of William Osler, M. D., Baltimore; J. H. Musser, M. D., Philadelphia; James Stewart, M. D., Montreal; John B. Murphy, M. D., Chicago; A. McPhedran, M. D., Toronto; T. M. Rotch, M. D., Boston; E. Landolt, M. D., Paris; John G. Clark, M. D., Philadelphia; Richard Kretz, M. D., Vienna; Jas. J. Walsh, M. D., New York; J. W. Ballantyne, M. D., Edinburgh, and John Harold, M. D., London, with regular correspondents in Montreal, London, Paris, Berlin, Leipsic, and Vienna, Brussels and Carlsbad. J. B. Lippincott Company, Philadelphia and London. Cloth, $2.00. Volume IV, 13 series, 1904.

This is an excellent number of an excellent quarterly, and several important branches of medicine are represented by timely articles. As in other numbers of the series, the articles take the form of clinical lectures and present a concise digest of the subjects treated. Under treatment we have articles on gastric ulcer by Tyson; croupous pneumonia by Musser; chronic bronchitis by Claytor; and the subcutaneous method of treating syphilis by Julien. Medicine is represented by an article on the physiognomical diagnosis of disease by Duckworth; clinical aspects of kidney disease by Favill; chronic nephritis by Bishop; tropical dysentery by Duncan; study of the pulse by Satterthwaite; rheumatic fever by Poynton; angioneurotic edema by Burnetz; syphilitic aortitis by Preble.

W. W. Keen treats of sarcoma of ilium; Senn of vesical calculus and allied subjects; Albarran of prostatic hypertrophy, Coombs of stricture of the esophagus, and the subject of surgery is represented by several other lectures. Other subjects treated by several articles are gynecology, obstetrics, neurology, orthopedics, ophthalmology and the book ends

with an exhaustive and timely article by McFarland on "The Present State of our Knowledge of Immunity."

NEWER REMEDIES.

Muscular Soreness and Rheumatism Due to Grip.—In speaking of the treatment of articular rheumatism, Hobart A. Hare, M. D., Professor of Therapeutics in the Jefferson Medical College and Editor of *The Therapeutic Gazette,* says: "Any substance possessing strong antipyretic power must be of value under such circumstances." He further notes that the analgesic power of the coal-tar products "must exert a powerful influence for good." The lowering of the fever, no doubt, quiets the system and removes the delirium which accompanies the hyperpyrexia, while freedom from pain saves an immense amount of wear, and places the patient in a better condition for recovery. The researches of Guttmann show conclusively that these products possess a direct anti-rheumatic influence, and among those remedies antikamnia stands pre-eminent as an analgesic and antipyretic. Hare, in the last edition of his *Practical Therapeutic sayss* "Salol renders the intestinal canal antiseptic." This is much needed in the treatment of rheumatism. In short, the value of salol in rheumatic conditions is so well understood and appreciated that further comment is unnecessary. The statements of Professors Hare and Guttmann are so well known and to the point and have been verified so often, that we are not surprised that the wide-awake manufacturers placed "Antikamnia and Salol Tablets" on the market. Each of these tablets contains two and one-half grains of antikamnia and two and one-half grains of salol. The proper proportion of the ingredients is evidenced by the popularity of the tablets in all rheumatic conditions and particularly in that condition of muscular soreness which accompanies and follows the grip. The Antikamnia Chemical Company, St. Louis, Mo., will send samples to physicians on application. Please mention this journal.

Shadow and Substance.—Now that cod liver oil is in full swing and the large and growing demand for this article made more apparent by the great scarcity of pure oil, the profession is better able to realize the position occupied by Scott's Emulsion. Every winter there is introduced at least one new cod liver oil preparation and until the following spring every inducement is made to unload it upon the public.

This year has been no exception, despite the great scarcity of pure cod liver oil. It is by reason of this latter condition that the profession should be careful what it recommends and uses in the way of cod liver oil preparations that are not absolutely guaranteed. With cod liver oil selling at unheard-of prices the composition of some so-called emulsions, wines, extracts, etc., is likely to be far below the standard and comparatively worthless.

It has been a great protection to the profession to know that Scott's Emuslion has maintained its position as the standard emulsion of cod liver oil during this unsettled time and that its quality and purity have not been changed in the slightest particular. Its popularity has never been menaced or its usefulness superseded by any of the hundreds of imitations that have come and gone since Scott's Emulsion was first offered for sale. Its success is due to the fact that it is the substance and not the shadow of cod liver oil.

Science in Eating.—Girls who value a good complexion and cheerful spirits are advised to eat plenty of spinach. It contains salts of potassium and iron and other whole-

some ingredients. The iron in it is easily assimilated. A vegetable not generally made much of by housewives because it is among the less expensive kinds, it is put in first place by the food experts and deserves more prominence in public esteem.

People troubled with poor memories are urged to eat mustard. The seed of the mustard plant is credited with very quickening, livening properties, said to have direct influence on those brain cells that have to do with forgetting and remembering.

Nervous folk ought to partake of cheese, which acts as a sedative. They should beware of eating cheese to excess, however, as it is a tax on the digestion. Only moderate consumption is efficacious.

A too steady diet of potatoes induces fatigue of both body and mind.

Apples are now held to contain much sustenance of the brain and to have an exhilarating effect on the spirits. Apples contain phosphorus and also malic acid, which is most beneficial for people under mental strain or who habitually do work which prohibits exercise. The apple should not be munched between times, but taken as a component part of the regular meals.—*How to Live.*

SOME OBSERVATIONS ON SOME CONDITIONS IN WOMEN THAT ARE OF MUCH CONCERN TO THE PRACTITIONER.

J. Ridgly Simms, A. M., M. D., Racine, Wis.

The conditions of which I wish to speak are dysmenorrhea, and the state following miscarriage or abortion, in which there are retained portions of the placenta and membranes that require removal or expulsion.

For lack of space, I shall devote myself, in the present paper, chiefly to dysmenorrhea, and will dismiss the condition following abortion with a few remarks, which may as well precede the other part of my article. I reserve for a future communication the detailed discussion of this important and interesting clinical condition.

The effects of retained placental or fetal tissue in a partially successful miscarriage or abortion consist in hemorrhages, purulent discharge, enlargement of the uterus, subinvolution, metritis, endometritis and sepsis. The indications in these cases are, therefore, the thorough emptying of the uterus and the rendering of the womb-cavity aseptic.

In ordinary cases this must be done by surgical interference, including curetting and the removal of all decomposing and diseased tissue, followed by the application of antiseptics to the endometrium. There is a class of cases, however, in which for one reason or another curettage is refused by the patient, and in which it is incumbent upon the physician to give what relief he can by medical means. In such cases I have prescribed Ergoapiol (Smith), a combination of the active principles of ergot (ergotine) parsley (apiol) and certain other emmenagogues and uterine tonics. In one case of this kind which came under my observation some months ago, I used Ergoapiol (Smith) with such marked success, that I learned since then to rely upon this preparation in removing the retained fragments from the uterus, emptying the organ and reducing it to its normal size and functions. The remedy in question has proved so trustworthy in my hands in these cases, that when it disappoints, which it rarely does, I look about to ascertain wherein I myself have erred.

A discussion of the causes of dysmenorrhea would lead us too far in the present brief clinical paper, and it will suffice if I assume that the reader is acquainted sufficiently with this part of the subject to follow me in the remainder of the article. The clinical diagnosis of dysmenorrhea is in itself easy enough, while the diagnosis of the cause is not always so sim-

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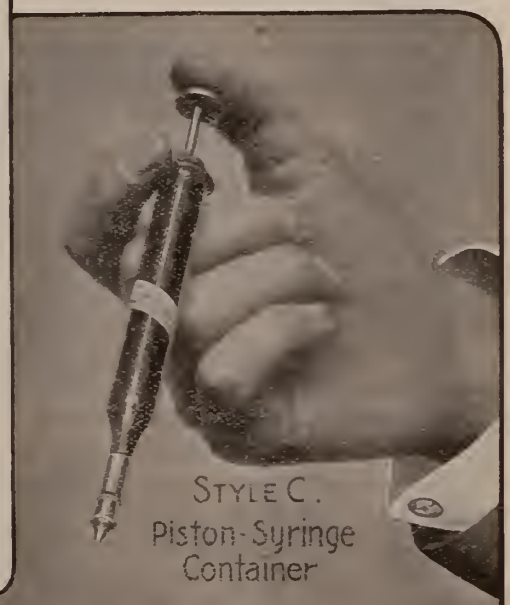

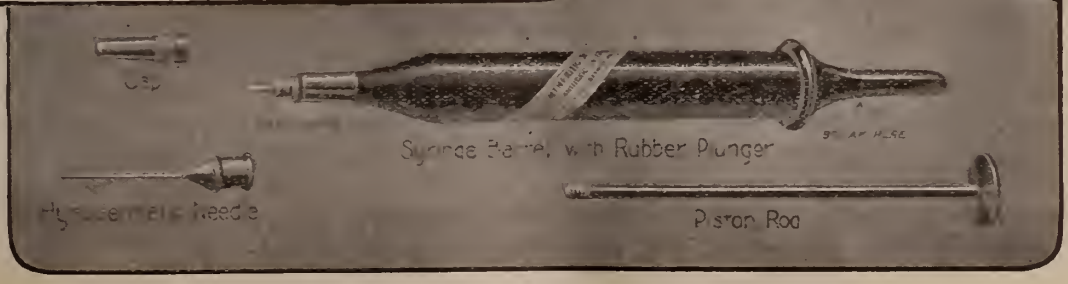

ple. In the cases presented here I paid especial attention to the causation of the menstrual pain, as I believe that in this manner I was better able to outline the indications for treatment. It goes without saying that dysmenorrhea from mechanical obstruction is not amenable to medical treatment. Fortunately, however, it has been in my experience at least, not frequent, as dysmenorrhea depending upon congestion. The specially disagreeable and intractable form of dysmenorrhea which is accompanied by a fetid discharge as a result of the decomposition of the retained menstrual blood, also comes under discussion here, as the use of douches with antiseptics and deodorants cannot be hoped to affect it permanently, while the employment of more radical medicinal means does bring about the desired effect in this condition.

In congestive dysmenorrhea, and in that form which is accompanied by fetid discharge, the indications are to diminish congestion, by promoting the contractions of the uterus and relieving it of the accumulated blood, to stimulate glandular activity in the mucosa, to restore the tone of the uterus and the nutrition of its tissues to normal, and to relieve spasm and pain.

The following cases illustrate the effects which I obtained with the use of Ergoapiol (Smith) in the treatment of dysmenorrhea:

Some months ago I was consulted by a young woman who had suffered from scanty, fetid menstruation, accompanied by a great deal of pain, since the birth of her first child seven years previously. Her labor had been followed by a tear of the perineum which had been left unrepaired, and also a laceration of the cervix uteri. This patient consulted a specialist, but his treatment did not give her relief. Examination revealed the presence of the uterine and perineal lacerations already mentioned, and disclosed a chronic endometritis that had given rise to a fetid discharge and to pain during each menstrual period. I repaired the tears, curetted the uterus, and hoped in this manner to obtain permanent relief of the patient's symptoms. After she had recovered from the operations, she declared that she was feeling better than she had been for years. But very soon the fetid discharge and the pain returned at each menstrual period, and evidently something else had to be done if I wanted to save my reputation. I then tried local applications, alteratives, uterine tonics, etc., all without avail, until finally Ergoapiol (Smith) was given. The result was immediate relief and a gradual and permanent improvement in the menstrual flow until it was free from pain and devoid of any disagreeable odor.

This patient was evidently suffering from congestive dysmenorrhea which was intensified by the presence of lacerations of the cervix and the perineum which had existed since parturition. The result attained illustrates very well how Ergoapiol (Smith) acted upon the uterus, restoring its tissues to normal condition and re-establishing the menstrual functions upon its normal base.

Another type of dysmenorrhea, that which I term "nervous," but which the authorities term "neuralgia," is illustrated by the following case which recently came under my care:

The patient was a young woman who had been married two years, but had not borne any children. She stated that she had pain during the menstrual period from the first onset of the menses, and at the time of examination she also complained of a fetid discharge. The menstrual flow was scanty and rarely of blood red color. Just before and after the period she had backache and headache, her complexion was unhealthy, not bright and clear as that of her sister, and she appeared older than she really was. She always dreaded the onset of the menses which recurred with a regularity that is not always present in these cases. She was easily excited, and received impressions vividly and indelibly. Her digestion was poor, and she was often sleepless, irritable and peevish.

Vaginal examination revealed a slightly thickened os and slight endocervicitis with erosions of the cervix. Cod liver oil, malt extract, hypophosphites, and aromatics, in combination, 25 per cent of each, were given freely during the intervals between the menstrual periods and for three days before the expected menstruation. Ergoapiol (Smith) was given in capsules, one being given three times daily until the discharge ceased. At the fourth period after the beginning of the treatment she was relieved of all her symptoms, and was free from pain and fetor during menstruation. Locally, tincture of iodine and occasionally tampons of ichthyol and glycerine were applied. The cure was permanent and in every way satisfactory.

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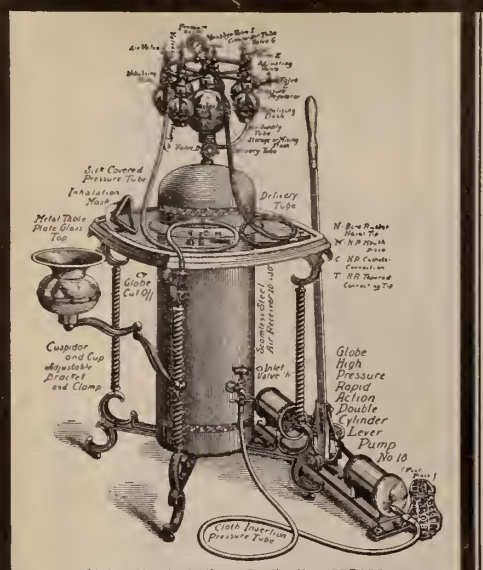

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Vermont Medical Monthly

Official Organ Vermont State Medical Society.

Vol. x. No. 4. Whole No. 112. | Burlington, Vt., April 25, 1904. | $1 per year. Single copies, 15 cts.

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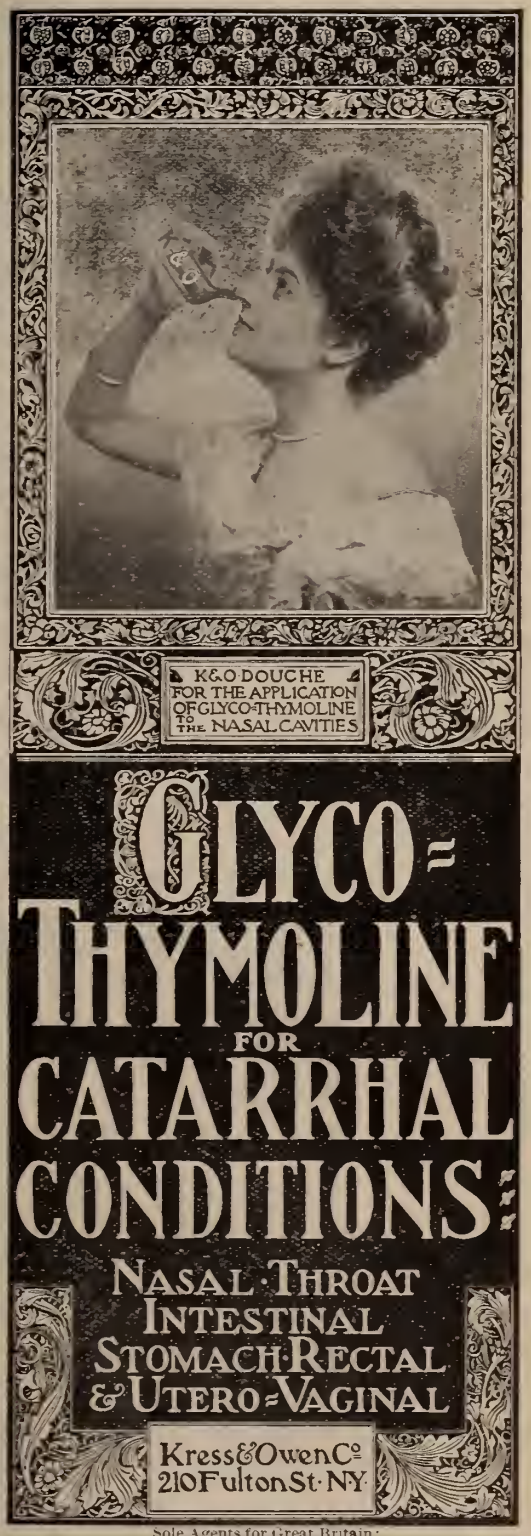

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The Vermont Medical Monthly

Vol. X. April 25, 1904. No. 4.

ORIGINAL ARTICLES.

SUPRA PUBIC CYSTOPEXY.

By A. Lapthorn Smith, M. D., M. R. C. S. Eng. Surgeon-in-Chief Samaritan Hospital for Women; Gynecologist to the Montreal Dispensary, Western General Hospital and to the Women's Hospital; Professor of Gynecology at the University of Vermont and of Clinical Gynecology in Bishop's University, Montreal.

Any operator who has had a large experience with cases of cystocele will agree with Augus Martin, formerly of Berlin and now of Griefswald, when he says that no matter what you may do you will in many cases fail to cure a woman of prolapse of the bladder. My usual plan which I have followed in several hundred cases, is to amputate enough of the hypertrophied cervix uteri to reduce its depth measured by the sound, to two and a half inches. Then to do a Stoltz operation on the anterior vaginal wall, which consists in making a denudation elliptical in form extending from the cervix to the urethra about three inches in length and about two inches in width; and then putting in a purse string suture of silk worm gut, which is tied tightly and left in for a month. The bladder is tucked in behind this constriction as the suture is being tied. Then the posterior vaginal wall is repaired so as to bring it up against the arch of the pubis, so as to support the anterior vaginal wall and the bladder. Then the bladder is opened just below the umbilicus and the fundus of the now small uterus is caught with a bullet forceps and drawn up as high as it will come; its anterior surface is scarified and it is fastened with silk to the abdominal wall. This generally has the effect of lifting the bladder up with it, and in the majority of my cases the woman has been cured. But there have been cases which like Martin's have remained well for a time and then the bladder gradually falls again, the woman complaining that the lump has again appeared at the vulva. Several of these failures I subsequently cured by employing the method proposed by Reynolds of Boston, namely, to open up the anterior vaginal wall, and separate it from the bladder until we can get back to the pelvic fascia, which is then brought together with buried silk or catgut stitches. But in the *American Journal of Surgery and Gynecology* for Aug. 1903, there is a much simpler and surer method of curing cystocele, advocated by Dr. Harris A. Slocum of Philadelphia, which I have since tried with perfect success. He says: "Holding the fundus with two fingers and thumb it was lifted to the position it would occupy when the fundal sutures were tied, and the parts inspected. Owing to the stretching whch the part's tissues had undergone, this manoeuvre had no effect upon the bladder, which still lay deeply in the pelvis. Traction was then made upon the peritoneal lining of the anterior abdominal wall. This was successful and brought the bladder up to its normal position behind the symphisis, where it was kept in place by a running catgut suture, for two inches, one inch on either side of the median line, thereby counteracting the

effect of the insufficient connective tissue fibres. In the case he reports, the tubes and ovaries were removed, the broad ligaments shortened thereby, and two silk sutures secured the fundus to the abdominal wall." I was so much impressed with the advantage of this operation that I decided to try it the next time I had a case of cystocele. I had not long to wait for these cases are very common. On the 3rd of September a Mrs. V., 54 years of age, was sent to the Samaritan Hospital for bladder trouble, which had lasted ever since the birth of her first child. This labor had been a difficult one with forceps, during which the bladder was probably separated from its connections. She had had ten children and four miscarriages, the last child 11 years ago and the last miscarriage 10 years ago. The uterus and bladder came out of the body, passing water always caused her great pain, and when she did any work she could not empty the bladder at all. She was obliged to get up several times in the night to urinate and during the day the desire to micturate was almost constant, owing to there being always some residual urine. A woman with cystocele is very much in the same condition as a man with enlarged prostate. On examination besides the cystocele the uterus was found to be double its normal length, retroverted and the cervix badly lacerated. The perineum was fairly good. I dilated, curetted, amputated two inches of the cervix and then opened the abdomen and separated the uterus from the bladder, and fastened the latter to the abdomen with two silk satures, and then did ventrofixation of the uterus. She made a splendid recovery from the operation with the exception that the ventrofixations ures had to be removed, and the bladder, which had troubled her for the last nine years, was completely cured; she now urinates freely and without pain. I was so favorably impressed with the result in this case, the woman being fat and flabby and just the kind of case that generally failed with other methods, that I intend to employ it in future in all cases of severe cystocele.

248 Bishop Street, Montreal.

TETANUS.*

By H. S. Carver, M. D., Marshfield.

Some time ago, the Secretary of this Society, desiring for some reason or other to torture such members as might be present at the September meeting, asked me to prepare and read, before this meeting a paper upon some medical subject of my own choosing. This invitation was couched in such delicate phraseology, which he knows so well how to use when trying to ensnare his victim, that I fell in the trap and agreed to do so. While wondering how to extricate myself from the dilemma into which I had tumbled, a severe and fatal case of tetanus came my way and furnished a theme on which to write, and I thought that by borrowing liberally from various authors, I might in this way get out of my dilemena.

Tetanus unfortunately is not a rare or unfamiliar disease. This is proven by the fact that since July 4th, 1903, 423 cases have been reported. Modern writers agree in defining the disease as an acute infectious disease of the nervous system, characterized by persistent tonic spasm of certain muscles, with violent but brief exacerbations, the spasm almost always commencing in the muscles of the neck and jaws, causing trismus, and involving the muscles of the trunk more than of the limbs.

Tetanus is probably always caused by the introduction of the tetanus bacillus through some wound. This bacillus, the favorite

*Read before the Washington County Medical Society.

habitation of which is soil and dust, was first discovered in 1885 and the first pure culture was made in 1889. It is a slender, rod-shaped bacillus, slightly motile, and forming spores upon culture media in the incubator at the end of 30 hours. It is best developed at the normal temperature of the body. It is extremely resistant, and in a dry condition can exist for years. It is destroyed by exposure to air and sunlight; by boiling water or moist heat at a temperature of 212° in five minutes; by immersion in 5 per cent. carbolic acid solution in 15 hours, and by bichloride of mercury solution 1 to 1000 in three hours. The poison is very powerful, Cohn finding one one-hundred millionth of a gram sufficient to kill a guinea pig.

The symptoms of the disease depend, however, not upon the organs in itself, but upon this powerful toxic material produced by it, which seems to have an action upon the central nervous system analogous to that of strychnine. Abundant and conclusive evidence of this causation exists, and has been ascertained by the researches of numerous investigators.

It was formerly taught that cold was a cause of the so-called idiopathic form of the disease, but in the light of recent researches, this idea must be given up. The disease occurs at all periods of life. During the first five years—the first month excepted—there seems to be *almost* complete immunity, the second decade of life yields the largest proportion of cases, and in the thirty years of life from 10 to 40 three-fourths of all cases occur. The disease occurs in both sexes, but is more frequent in males, the proportion beinb about 6 to 1.

The tetanus infected wound involves an actual breach of surface. It may be in any position, of any character and of any degree of severity. Cases are recorded where the disease has followed the sting of bees, the prick of briars and needles, the romoval of foreign bodies from the eye—every kind of surgical operation—every kind of incised, punctured, contused and lacerated wound, but it is the punctured, contused and lacerated wound that furnishes the larger number of cases. Injuries of nerves were formerly supposed to be especially concerned in the production of this disease, and small rather than large nerve trunks. The order of frequency with which the several parts of the body have been the seat of wound infection is, first, the hand; second, the leg; third, foot; fourth, head and neck; fifth, arm; sixth, trunk.

The wound is sometimes in an unhealthy, irritable condition, but more often in a perfectly healthy state, and frequently completely healed. In a large proportion of cases the wound has been found contaminated with dirt, and the tetanus bacilli have been found in the contaminating material. They are found in spider's webs, and tetanus has followed their application as a styptic to wounds. Quick changes of temperature, such as warm days and cold nights, are said to have great effect in producing the bacilli, and Park says that in military campaigns, where the wounded are cared for in churches, the attacks have been more numerous than where they were cared for in other localities. The interval between the infliction of the wound and the appearance of first symptoms is said to be from five to fourteen days, but may be longer or shorter. Many cases are recorded commencing in from 12 to 48 hours, and nearly all the text books mention the case of Robinson, in which a negro cut his hand and died in 15 minutes from lock jaw. As a rule the onset is slow. The first symptoms are stiffness in the muscles of the neck and jaw, slight soreness of the throat, but some hours or days may pass before any particular trouble is experienced in opening the mouth. Muscular rigidity slowly increases, soon involving the muscles of the

face, and the rigid muscles of mastication prevent opening the jaws. The muscles of the back and lower extremities are next involved, the muscles of the arms being little affected.

Beyond a feeling of stiffness, little discomfort is experienced at the outset, but as the spasms increase, pain is felt in the affected muscles, gradually increasing in degree. The head is drawn back, the spine is arched, the legs rigid, the feet extended, so that the victim rests upon his head and heels. The abdominal muscles are rigid, and *very severe pain* is felt in the epigastric region, darting through to the back. The body is covered with perspiration both during the spasm and in the interval, and in the case I have mentioned, a very prominent symptom, and one I have not seen mentioned, was ptyalism. A large quantity of saliva continually dribbled from the mouth. Toward the end, when the respiratory muscles share in the spasm, the respirations are short and hurried. Noise, motion, the act of swallowing, all bring on the spasm. They cease during sleep, either natural or induced, but recur immediately on awakening. The pulse is increased in frequency, and the temperature is said to be often normal, but usually a moderate rise is noted throughout the disease, and cases are on record where the temperature has continued to rise after death.

The pathological conditions observed upon autopsy in the wound, the nerves, the central organs and the muscles, have been so varied and inconstant that post-mortem examinations have afforded little or no definite information regarding the morbid anatomy of the disease. The nerves in and about the injured area have often been found red and swollen, and blood extravasated at various points. At times when to the naked eye healthy, microscopic examination has shown one or a few of the constituent bundles inflamed. Repeatedly the most thorough search has failed to find any departure from the normal state other than the bacilli in or about the wound.

When fully developed tetanus cannot well be mistaken for anything else, but in the early stages the stiffness of the neck, sore throat, etc., have been attributed to muscular rheumatism and exposure, and wound spasm, clonic in character and of different degrees of severity beginning in the muscles of the affected part, are said to have been regarded as tetanus and recovery having taken place, it was considered due to the treatment adopted —operative or therapeutic. Connor says hysterical spasms may strongly resemble those of tetanus, and such attacks, without doubt, have been wrongly diagnosticated, the cases going to swell the number successfully treated in one way or another.

We all see plenty of hysteria, and most of us see little of tetanus, and to one who has seen as little as I have, it does not seem possible that this mistake could be made. More than anything else, the character of the symptoms resembes strychnia poisoning. Mistakes in diagnosis are rare, but several are recorded. In strychnine poisoning the symptoms never commence with trismus; they develop in a more rapid manner than has ever been seen, except in the rarest cases of tetanus, in which the wound confirms the diagnosis. The *severe, well-marked* and much complained of epigastric pain of tetanus is absent in strychnine poisoning.

The prognosis is most grave. No matter how slight the initial symptoms or how trivial the injury, after lacerated wounds, compound fractures or any wounds distinctly contaminated with earth, recovery is rare. It is rare that the disease develops within ten days from the receipt of injury. It is worse, if the spasms quickly extend to the trunk—better, if trismus exists alone for several days. After four or five days the prognosis improves, but is not hopeful until after the lapse of two weeks.

The danger is said to be greater in suppurating wounds than in those that heal by first intention. Percentages of mortality are given by different authors varying from 45 to 90, but the actual percentage of death is probably *far* nearer the larger figure. In the 423 cases mentioned, only 17 recovered.

No condition can be imagined in which prompt and efficient treatment is more urgently demanded, and where results are so unsatisfactory. In the rare instances in which people recover, one questions whether recovery is due to individual resistance, or to treatment, and the remark of Sir Thomas Watson, that he did not know whether people recovered in consequence of treatment or in spite of it, is as apt to-day as when he made it 50 years ago. Operative interference after the development of the symptoms is of no avail, and anti-tetanic serum is of doubtful value. Manufacturers and others claim that it has greatly reduced the mortality, but the death rate of the cases just reported does not prove this statement. One hundred and eleven of these cases come from Pennsylvania and Michigan, the home of the tetanus anti-toxin in this country, and while we do not know, it is fair to suppose it was used and the death rate is as large there as anywhere. The serum is somewhat difficult to administer. The dose should be large—20 to 30 cc. each six hours. The dose fills the ordinary anti-toxin syringe four to six times full, and the patient is thrown into a violent spasm every time it is used. Behring insists on giving the serum not later than 26 hours after the appearance of first symptoms. He also urges that all coming in contact with the disease should receive immunizing doses of 5 cc. In one case mentioned in the newspapers as recovering, a boy 10 years old, received 80 cc. of anti-tetanic serum, but the physicians were undecided whether it was of any benefit or not. In the case mentioned treated by myself, 80 cc. (all I could get) were administered with no apparent effect. The first dose was given 22 hours after the commencement of symptoms.

The drugs most relied upon are chloral, opium, calabar bean and chloroform with chloral a strong favorite apparently. There seems to be much difference of opinion in regard to treatment by chloroform inhalation, some strongly urging, others strongly opposed to its use. Chloral surely diminishes the frequency of the spasms and produces sleep. Some strongly emphasize the idea that the fate of the wounded is in the hands of the one applying the first dressing. I am strongly inclined to accept this theory as true, but will someone tell me how to make the first dressing sure against the development of the tetanus bacilli and their toxins?

An editorial in a recent issue of the *Journal of the American Medical Association,* speaking for the prevention of such wholesale destruction as is caused by these Fourth of July accidents, strongly emphasizes the danger of inadequate treatment.

How can we make it adequate?

NEURASTHENIA IN THE MALE.

By H. Edwin Lewis, M. D., Burlington, Vt.

Of all the patients that the medical profession are called upon to treat, the male neurasthenic certainly tries the skill and patience most. We look for all manner of idiosyncrasies in the female, and forewarned is forearmed. But when a man of sound physique, and no evidence of organic disease, applies for treatment for a host of imaginary ills, most every practitioner is constrained to say, "Good Lord deliver us."

When Beard, in 1869, directed attention to a general nervous state, a condition which he termed neurasthenia, the medical profession

little knew how large a factor this disease would play in the future study of medicine. To-day it is generally recognized that neurasthenia is a real morbid condition. It is not the result of modern civilization as many writers would have us believe, but an actual disease that has probably existed as long as society. The name is not a generic term and when so used implies ignorance on the part of the physician. It represents a specific condition with a definite etiology, pathology and symptomology. There can be no question but that the trend of modern life, particularly in the larger centres, tends to aggravate and multiply cases of this disease. Overwork is unquestionably one of the principal causes, coupled with anxiety, worry or persistent excitement. It is a fact that the nervous system, or the mental economy of any person can stand only about so much. When overtaxed the results are bound to be disastrous, just as a muscle will suffer from excessive work. Add to overwork, individual habits, including excesses of all character, and neuropathic tendencies which are often the result of hereditary influences, and it can be readily seen that nerve tire is of prime importance in the development of neurasthenia. Within later years certain toxic states such as syphilis, rheumatism, or the auto-intoxication of chronic constipation have been recognized as important factors in the etiology of the disease. At any rate close study points to this important fact, that not one, but several causes unite to produce the group of symptoms ascribed to neurasthenia.

Generally speaking, we know very little of the pathologic anatomy of this disease. The best authorities are inclined to believe that it is nutritional in character. Certainly the etiology of the malady would point to this. But it does not seem an erroneous conception to believe that there is often marked diminution of nerve energy due to functional changes in the cellular structures which cannot properly be considered nutritional in character.

The elementary cells of the nervous system are extremely liable to variation in their functional activity, and there may be a decrease or perversion of vital force without actual structural change. Careful study of many patients with neurasthenia will sanction the belief, therefore, that there are many cases in which the nutritional derangement is secondary to variation or decrease of nerve force.

The symptoms of neurasthenia are so numerous that a text book might almost be written in regard to them. The most prominent symptoms are headache, gastro-intestinal disorders, constipation of greater or lesser degree, mental irritability and depression, insomnia, neuralgic pains in any part of the body, palpitation of the heart and general feebleness of the circulation, vaso-motor disturbances in general, and usually some symptoms referable to the genital apparatus. It may be well to take these symptoms in their order and consider them separately.

The headache of neurasthenia is more or less constant, quite persistent in its character, and always aggravated by prolonged muscular or mental effort. The patients usually describe headache in very marked terms, locating it in the occipital or frontal region, or in fact in any portion of the head. Some complain of throbbing headache, others say it is splitting, and many describe it as a severe constriction about the head. They may speak of peculiar sensations in the scalp, like crawling sensations, etc.

Pain in the back of the neck is commonly complained of.

The extent of the gastro-intestinal derangement usually occasions the greatest alarm on the part of the patient. He is convinced that he has all manner of trouble with his stomach, from "dyspepsia" to cancer, and

that the disease is more or less incurable. Careful interrogation of the case, however, usually shows that the gastric disorder is nervous in its character, in fact that the patient is a sufferer from gastro-intestinal neurosis. Excessive fermentation and formation of gas is the principal symptom with distress after eating, and heartburn, nausea is often complained of. The appetite may be fickle and vary greatly from day to day, or from meal to meal. In many cases actual dilatation of the stomach does occur from excessive formation of gas. It is a certain fact that gastric digestion in the neurasthenic is markedly retarded, and in many cases may actually stop. We well know the influence of the nervous system on digestion; excitement or sudden shock, or anger immediately following a full and hearty meal will stop digestion completely. Therefore, it is not surprising where a condition of nervous depression is present nearly all the time that the gastric digestion should be interfered with. The same forces are at work in regard to digestive processes in the intestinal canal. The whole condition is atonic and the natural result is constipation and fermentative changes throughout the whole alimentary canal. The degree of the trouble varies from time to time, depending on the individual's condition from day to day.

Closely connected with the gastro-intestinal derangement is cardiac palpitation and vasomotor disturbances. The intimate relation existing between the digestive and circulatory organs through the pneumogastric nerve and sympathetic nervous system, easily accounts for the functional derangements of the heart and arterial system. There is usually more or less cardiac distress after eating, possibly due to pressure of the distended stomach, and the heart's action may become rapid and weak. The pulse is usually from 100 to 140 and may go higher. Heart murmurs are usually absent except when the general nutrition becomes very low. The extremities get very cold, while the face may be flushed and hot. There may be disagreeable pulsations in the neck, and a patient may complain of hearing or feeling the beating of his own heart.

The mental symptoms of neurasthenia are interesting, but exceedingly intractable to treatment. In fact, in giving a prognosis, the psychic factors in the disease are most important of all. If they can be eliminated or overcome, the patient usually gets well, and his other symptoms disappear as by magic. Unfortunately they are extremely hard to dissipate and this is why, in many cases, cure of neurasthenia is so difficult to accomplish. These patients complain of mental fatigue and a sense of overhanging danger. They claim to lack ambition, and inability to apply themselves to any work requiring much thought or close attention. They may also complain of failing memory, and lose interest in passing matters. As this condition becomes aggravated, they become more wrapped up in their own condition. Indeed, the habit of introspection and the study of their own sensations and symptoms gradually fills their whole life and absorbs their whole attention. They become morbid and depressed, and are extremely open to external suggestions in regard to their own condition. They may be sensitive and the least little thing will annoy them. The emotions become less evident, and they feel less kindly and affectionate toward their nearest friends and relatives. Their whole disposition becomes completely changed, they are different entirely, and this is not only evident to those with whom they come in contact, but they recognize it themselves. It is no uncommon thing for a neurasthenic patient to fear that he will become insane, and dread of this possibility may be very persistent. The whole mental condition may be so perverted as to really border on melancholia and hypochrondriasis, but it is extremely rare that these

conditions actually supervene. Unusual fears may attack the neurasthenic like fear of people, daylight, open, closed or high places, and so forth.

The symptoms referable to the genital apparatus are usually quite prominent in neurasthenia of the male. They take the form of impotence relative or fancied, pain and tenderness in the genitals, and nocturnal emissions if unmarried. Hyperesthesia and strange sensations may be complained of. If the patient has ever masturbated, and most of them have, the symptoms are all allied to these indiscretions of youth. If the patient is married, premature ejaculations and failing desire cause severe apprehension, and the patient is tortured by his "failing manhood." Fortunately, continence for a longer or shorter period almost invariably restores virility and desire.

The other symptoms are numerous and diverse, but not sufficiently constant in every case to warrant attention. Sweating may be a disagreeable symptom, as also may be excessive dryness of the mouth or throat. It is needless to sav that they have their origin in vaso-motor disturbances.

The treatment of neurasthenia is indeed a problem. To accomplish success in any degree, careful study of each individual case should be made. No two cases are identical. The great variety of psychic factors entering into the clinical picture of each case make the careful consideration of each patient's characteristics and disposition of great importance.

In beginning treatment, the attending physician should recognize the value of suggestion, and endeavor to impress his patient with the absolute certainty of cure. There are so many symptoms of neurasthenia that only exist in the patient's mind, that every effort should be made to supplant them by other thoughts and ideas.

But while a patient's early cure should be regarded as foregone by the physician in manner and conversation, and his ailments and symptoms are not to be magnified, neither should they be minimized or lightly considered. It is far better to admit to the patient that his views of his malady are correct than to attempt to combat him and prove his ills imaginary. Such a course arouses a certain amount of antagonism, and seriously interferes with the suggestive influence that a physician should exercise over a neurasthenic patient. Some call this influence personal magnetism, but no matter what it is, when properly exercised, the ability of the physician to inspire confidence in the mind of the neurasthenic patient concerning his early and complete cure is a most valuable aid to whatever routine treatment may be instigated.

The first step should be careful regulation of the emunctories. The average neurasthenic patient drinks very little water, as a consequence his urine is scanty and although concentrated, is insufficient in quantity for normal elimination of the waste products ordinarily thrown off by the kidneys. A considerable quantity of water should therefore be given, and to insure a proper amount, it is well to order five grains of lithia in a glass of water, three or four times a day in addition to what the individual can be persuaded to take on his own account. Water is a good diuretic, and taken in sufficient quantities, in the absence of any pathologic lesion of the kidneys, will flush them out and hasten elimination of many waste products from the body.

Since constipation is usual in every case of neurasthenia, an early attempt should be made to unload the lower bowel and insure elimination of fecal material. Some of the salines can well be used for this purpose for the first three or four days to secure from three to six evacuations from the bowels daily. The patient may complain of weakness, but can be assured that this will be only temporary. After the first few days small doses of cascara

at bed time, with an occasional morning dose of some good saline, will be all that is necessary to keep the bowels in a normal condition.

The diet should receive early attention in order to insure food most capable of producing a maximum amount of nourishment, energy and force, with a minimum tax on the digestion and excretory organs. Milk, eggs, beef, lamb, whole wheat bread, raw oysters, fish, spinach, celery, asparagus, cooked fruits and sparing quantities of tea, coffee or cocoa may be taken. Rich soups, pork, veal, potatoes, sausages, lobster, salmon, pastry, sweets and all alcoholic beverages should be strictly interdicted.

In many cases sedation is necessary at the beginning of treatment, and for this puspose the bromides unquestionably stand first. Especially is this so if the headache and general symptoms are congestive in character. A most excellent prescription is the following:

R.	Sodii Bromid,	4 drachms.
	Tinct. Ferri. Chlor,	"
	Glycerine,	2 ounces.
	Aq. or Aromat. Elix, qsad, 4 oz.	

This should be taken a teaspoonful in one-half glass of water three times a day. Its influence is usually soon manifested by a decrease of headache and general neuralgic pains. The patient begins to sleep better, and the exhausting dreams so frequently complained of are entirely stopped, or lessened.

The digestive symptoms will call for early treatment, and relief of the distressing flatulence is often the principal desire of the patient. Antifermentatives are serviceable, and the mental effect of gastric lavage is often remarkably prompt in its results. A tablet composed of charcoal, 1 grain; cascara sagrada, ½ grain; capsicum, ⅕ grain, and oil of peppermint, ½ minim, is valuable in many cases, and has the virtue of stimulating the gastric mucosa and glands to a nearer normal degree of activity.

As soon as general relief of the patient's symptoms is observed, steps should be taken to raise and improve the nerve tone. A small amount of systematic exercise is especially valuable at this time in the form of calisthenics, the use of light chest weights, or punching the bag. Judiciously followed, the value of mild exercise cannot be over estimated, and its beneficial influences on the whole circulation is usually marked and immediate.

For internal medication at this time, too great stress cannot be laid on the value of arsenic. A preparation known as sodium cacodylate is one of the best for internal administration, as it can be given in larger dosage, and over longer periods than almost any other form of arsenic. It exercises a marked influence on the restoration of nerve tone through rapid improvement of nutrition, and has the further advantage of accomplishing its beneficial results without undue stimulation. The dose is ¼ grain, three times a day, after meals. The glycero-phosphates of lime and soda are also valuable in building up nerve force and can often be given in connection with other medication with marked benefit. The use of strychnine is often followed by excellent results, but there are many patients who do not receive any benefit from it. Insomnia may be increased and general nervousness aggravated instead of improved.

As a routine adjunct to all treatment, electricity is our most valuable means of curing neurasthenia. If our conception of neurasthenia is correct, and it is a disease of nerve exhaustion, faulty nutrition and impaired function, then electricity properly administered should theoretically give us most excellent results. Practical use of static electricity has demonstrated, beyond controversy, that it is wonderfully efficient in this disease. The primary effect of the static breeze, or brush discharge, is to equalize or regulate the circulation, and in this way is brought about a de-

gree of sedation and tonicity of the whole system that can be accomplished by no other agency in so short a time. The repeated application of a high tension oscillatory current has a direct influence on not only the vasomotor system, but directly restores cellular force in the protoplasm of the nervous system by increasing the potentiality of individual cells.

The theory is growing in strength that all manifestation of nerve energy is due to the potentiality of the cellular or neuronic elements of nerve tissue. In a condition of health, the polarity of individual cells is so arranged that nerve currents can properly pass with resulting sensation and movement. In other words, the conductivity of nerve tissue is normal. If the conducting power of nerve fibre is imperfect or lost through diminution of the vital force which maintains conditions favorable to the passage of nerve currents, the natural result is structural or functional derangement somewhere in the body. Hence, the use of high tension currents approximating normal nerve currents has a tendency to increase the potential force and therefore, by readjusting the polarity of nerve cells and tissues, facilitate the passage of nerve impulses.

It is certain that the above theories are being corroborated by the remarkable results that are being obtained in nerve diseases and disorders through the intelligent use of electricity. In neurasthenia electricity has its greatest field for it can accomplish just what is needed most, the innervation of exhausted tissues.

"It requires 5,000 tons of pitchblende, the mineral from which radium is extracted, to make 1 pound of radium, and, according to Hammer, it costs $2,000 per ton to handle it, making the cost of radium, according to this computation, $10,000,000 per pound."

SOME INTERESTING CASES.

Clinical Society of the New York Polyclinic Medical School and Hospital.

Meeting held March 7, 1904.

The President, Dr. James Hawley Burtenshaw, was in the Chair.

EPITHELIOMA OF THE ORBITAL CAVITY.

This patient was presented by Dr. W. E. Lambert. Two years ago his eye became diseased, and was removed. Three weeks ago he visited Dr. Lambert's clinic. Abscess filled the entire orbital cavity. It was opened, and a large quantity of pus evacuated. A section was made of a small indurated portion of the lower lid for microscopical examination, and it was reported to be epithelioma. The cavity was carefully explored, but no contents were found. The man had a peculiar voice, and examination revealed an opening in the hard palate which at first seemed to lead to the posterior nares, but later was found to communicate with the antrum. A section was removed from the upper portion of the antrum wall for examination. The speaker said that this was an example of a removal of a growth from the orbital cavity too late to obtain good results. Undoubtedly the abscess had invaded the cells of the antrum. If this should prove to be an epithelioma of the antrum, what could be done for it? He did not think that further surgical interference would have any effect on the growth. X-ray treatment might be of some benefit, although the progress which the disease had already made rendered this doubtful. The prognosis in cases of this character is often uncertain. In one instance a patient presented himself two months after operation with induration of all the contents of the orbital cavity and a return of the disease in the lower part of his face. The indurated tissue

was removed, the operator cutting as deeply as he dared, and the patient was advised to go home. Three years later he reported that he was in better condition than at the time of the second operation.

STRABISMUS.

Dr. Lambert also showed three cases of strabismus. The first patient had been operated on nine years ago, and soon afterwards her eyes turned upward. Although there was practically no vision in the affected eye, she desired a second operation. A perfectly straight eye resulted. The second patient was a relative of the first, and her primary operation was performed at the same time. Her eyes also began to turn upward. At present there is also an immense amount of protrusion, and the vision in one eye is very much poorer than in the other. The third patient was a child, who had been operated on with very good results. The position of the eye was improved, as was the vision. The speaker called attention to the three different results from one operation, and said that in the majority of these cases a very high degree of narrow refraction produces a poorer vision in one eye than in the other. The vision, however, sooner or later becomes normal.

STRICTURE OF THE RECTUM.

Dr. J. M. Lynch showed a specimen of stricture of the rectum, in which all the anatomical relations were preserved, showing bladder, uterus and other appendages, and in which could be produced the tactile sensation of the stricture. It also showed the cicatrix of an ulcer which existed when the speaker first saw the patient. The ulcer rapidly healed under enemas of peroxide of hydrogen and boric acid and local applications of 50 per cent. argyrol. The patient was about 30 years of age, married, and gave a negative family history. Personal history of several abortions during the past ten years, peritonitis following the last one, about four years ago. She suffered from a gradually increasing and persistent constipation from infancy, relieved only by cathartics. Three years ago she was operated on for stricture, a posterior proctotomy evidently having been performed. Dilatation was not kept up after the operation, however, and the stricture returned and the constipation was as severe as before. She also suffered from pain in the rectum and sacral region, exceeding nervousness, frequent urination, flatulency after eating, a discharge of mucous pus and blood with the stool, and had to strain considerably. When she first consulted the speaker, about two months ago, she was consuming large quantities of alcohol under the impression that it relieved her nervousness. She took about a pint a day, and the result was a chronic gastritis, with the usual morning vomiting, which was relieved by lavage. The allowance of alcohol was limited to three ounces a day. She gave a negative history of syphilis, and there were no evidences that she had ever had this disease.

A examination of the rectum, which was exceedingly painful, showed an annular stricture some two inches above the anus. At this point the lumen of the gut was considerably diminished, not large enough to admit the tip of a small index finger; below the stricture was an ulcer about the size of a dime. An examination through the vagina above the stricture was so painful as to lead to the belief that ulceration existed above the stricture as well. Palliative treatment was useless, unless continued for the remainder of the patient's life, and the only hope of relief was in a radical operation. A resection was decided upon, and the patient was prepared for the operation by the administration of an enema of peroxide of hydrogen and boric acid twice daily for two weeks. The ulcer was healed by the application of argyrol. She commenced taking alcohol secretly in large quantities a few days be-

fore the date set for the operation, and one day suddenly expired in uremic convulsions.

RADIOGRAPH OF INCOMPLETE COLLE'S FRACTURE.

Dr. J. A. Robertson showed a radiograph of what is referred to by Dr. Roberts as a "rare, incomplete, reverse Colle's fracture." In addition, the radiograph showed a break, which had knitted, of the styloid process of the radius and a fracture of one of the carpal bones.

PERFORATING GASTRIC ULCER.

Dr. J. A. Bodine reported this case. The patient, while out shopping and in apparently good health, was seized with sudden violent pain in the abdomen and fell to the floor in a faint. She was removed to her hotel in a cab. The speaker saw her in consultation four hours later. She had returned from abroad the day before and had always prided herself on her perfect health and energy. Inquiry as to her digestive functions brought out the fact that she had not been able to drink coffee the past few years, and that occasionally a little gas was formed in the stomach, which was relieved by a pinch of soda. There had never been any pain, vomiting or other symptoms traceable to this organ. Her pulse was 110 and temperature 99 degrees F. Her entire abdomen was rigid and sensitive to the touch; liver dullness present; tongue extremely dry, brown-coated, cracked; the typical picture of facies abdominalis present. Rupture of either the appendix, gall bladder or stomach was the tentative diagnosis, and immediate exploration was advised. As there had been no history of appendicitis, and as it seemed impossible for the appendix to rupture suddenly without some warning, this diagnosis was lightly considered. There had been no previous history implicating the gall-bladder, and, as in the case of the appendix, sudden, violent rupture was thought to be impossible without previous incriminating symptoms. The presence of an extremely dry, septic tongue, together with the absence of any previous symptoms, seemed to point to a perforating gastric ulcer.

A compromise incision was made along the right linea semilunaris so as to cover the three organs under suspicion. Some turbid fluid escaped from the peritoneal cavity. The appendix was brought into the incision and found to be healthy. The pelvis was explored with reference to ectopic rupture and the pelvic organs were found to be absolutely healthy. The incision was enlarged upward and the gall-bladder found to be healthy. The pyloric end of the stomach was then drawn into the wound, and on the anterior surface, near the pylorus, a clean-cut perforating ulcer, the size of the end of a lead pencil was found. Some gastric juice was escaping, the stomach being empty at the time of perforation. An induration, possibly an inch in diameter, surrounded the opening. On account of the condition of shock present, fancy surgery was not attempted, and the perforation was treated much as one in typhoid fever. The ulcer was inverted and buried beneath a suture. A convenient omental graft was lightly stitched over the suture-line. The wound in the abdominal wall was closed, the gauze being brought out at the upper angle. The stomach was washed out with salt solution, to remove any contents present as well as to prevent any after-vomiting. Every two hours the patient was turned on her right side for a few moments and then again allowed to turn on her back. This was done to empty through the pylorus any mucus and gastric juice that might accumulate in the stomach. Morphin was also used in the after-treatment as a physiological splint. Nutrition has been sustained with enemas and thirst by rectal saline injections. Twelve days had elapsed since the operation, the patient had been taking food by mouth about two days, and she is about well.

DEGENERATION OF THE CARTILAGINOUS STRUCTURE OF THE EAR.

Dr. G. B. McAuliffe showed this patient. He said that the man had received a slight traumatism which was entirely out of proportion to the changes that had taken place. Particular attention was called to the shape of the tip of the ear. The usual outline of the curves had been entirely lost. The speaker said these cases were often found in insane asylums and in institutions of a similar nature, and some authorities questioned whether a nervous lesion was not in some way connected with the condition. In the present case injections of iodine, carbolic acid and other remedies had been tried, without result. The affection is often met with in chronic epileptics.

Dr. D. J. McDonald said that a similar condition is common among the Flathead Indians and among others on the frontier, and in men who have been nipped by the frost. The point of the ear in these cases is marked as typically as in the insane.

EXOSTOSES OF THE AURAL CANAL.

Dr. McAuliffe also showed specimens of exostoses which had been removed from the canal of a patient's ear. They had been grasped by a simple tenaculum, and, aided by the patient's involuntary jerk in the opposite direction, had been removed by this instrument. The exostoses showed a small neck by which they had been fastened to the wall of the canal, which neck had not been visible while these tumors were in position.

Dr. J. H. Abraham said that Dr. McAuliffe was fortunate to have cases in which the tenacular could be employed so readily. He had seen several cases of exostosis or hyperostosis, and in the majority, operative interference was contraindicated, as the patients never complained of a single symptom that could be traced to the presence of these tumors. The greater number of these growths are attached to the root and posterior wall of the external auditory canal, and in a few cases they are very close the tympanic membrane; so near, in fact, that the operation described by Dr. McAuliffe is apt to prove far more serious than the presence of the tumors themselves, on account of the injury that is liable to occur to the tympanic membrane. The speaker had seen cases of exostosis in the canal in which a probe was passed with difficulty. How a tenaculum of sufficient size and strength to remove them could be passed around these tumors was beyond his comprehension. In cases in which there is an otitis media and in which the larger growths interfere with normal hearing, some operation is indicated and should be performed. A radical operation for removal, under general anesthesia, with the chisel, trephine or other suitable instrument is the one indicated. He did not consider the tenaculum the proper instrument in such cases.

Dr. McDonald said that the method employed by Dr. McAuliffe was endorsed by Barr, of London, and by many other well-known authorities. They do not advocate the removal of every exostosis, but in the majority of cases, when it is possible to pass the tenaculum, they favor this procedure.

Dr. Quinlan said that these growths often exist and the attending physician and even the patient are unconscious of the fact on account of the absence of symptoms. In such cases he did not counsel their removal. He agreed with Dr. McAuliffe that it is much wiser to remove them with the tenaculum than to open the canal and run risks of possible infection. Practically all of his patients with this condition of the canal had been more or less frequent sea-bathers, and he was inclined to think this was a factor in its development. Also, most of his patients had been men affected with uric acid diathesis.

Dr. McAuliffe closed the discussion, saying that he recalled one instance in which a pa-

tient was to be operated on for exostosis by opening the canal, and when the ether was administered the patient developed an epileptic attack. He was sent to the speaker to see if some relief could not be obtained without an operation, and the tenaculum was employed successfully.

The paper of the evening was read by Dr. George B. McAuliffe, the subject being

EARACHE.

He said that the importance of earache as a pathological symptom has grown, *pari passu,* with the discovery of the multiform sequelæ of inflammation of the middle ear. Though Nature's danger-signal, it has been too often disregarded by reason of its frequent innocuous occurrence and by reason of the ignorance of the patient and the incapacity of the general practitioner along special lines. The lessons gained from the necroscopic examinations of brain abscesses, sinus thrombosis, and the meningitis have illumined the symptomatology of cases formerly treated for disturbed dentition, worm gastritis, pneumonia, cerebrospinal meningitis and malaria. Many practitioners have acknowledged that in former years cases has been treated by them under one of the above captions which now appeal to them as examples of metastases of aural sepsis.

Earache, a subjective symptom, was discussed as it appears to the general practitioner, who does not differentiate the many pathological processes of which this is the most salient symptom. Earache occurs generally at night. No explanation of this is extant. It is probably explained by the fact that while erect the pharyngeal orifice of the tube is an inch below the tympanic opening. In the recumbent position the tympanic opening is below the pharyngeal, consequently gravitation combined with weakened ciliary action of the tubal mucosa allows infection to enter the tympanum.

Bather's earache comes from the brine which is forced up into the Eustachian tube by swallowing or by clearing the nose after coming out of the water, habits which are universal in bathers. Earache is not caused by water which enters the canal, since the drum is protected by skin which tolerates salt water. An exception to this last statement is found in persons who have a perforation in the drum. The habit of plugging the ear with a cotton protection is fatuous, except in diving.

Earache generally emanates from the nasopharyngeal infection. The importance of keeping down bacterial growth in the nose and throat during infectious diseases was illustrated by statistics. Seven per cent. of measle cases in which the nasopharyngeal cavities were attended to developed otitis media; 16 per cent. developed otitis media when no treatment of the nose and throat was instituted.

Adenoids influence earache more by infection from their germ laden follicles than from pressure. Besides, the adenoid tissue in the tube is sympathetically affected in attacks of adenoiditis,—the so-called croyzas of children. Blowing the nose is responsible for many earaches, especially during colds.

The amount of earache is not a guide to the amount of inflammation behind the drum membrane. The pain is felt only when the skin surface of the drumhead, which contains most of the nerves, is pushed out.

General Treatment.—Rest in a semi-reclining position on the sound ear, with the face turned to the pillow, to favor venous return and drainage to the throat; abstention from alcohol, tobacco and hot drinks. Tincture of aconite in the case of children one drop every hour, and for adults, aconitia (Duquesnel's), 1-500 of a grain every hour until the constitutional effect is felt; no opiates; calomel, 1-10 of a grain, every hour until ten or more doses have been taken. Tincture of

pulsatilla, one minim every hour or so, if profuse nasal discharge exists, is useful.

Local Treatment.—The instillation of drugs is useless, unless when glycerine causes exosmosis or the pressure of the drops supports the bulging drum. Applications of cocain and of adrenalin to the pharyngeal mouth of the tube relieves; dry heat, hot douches, refrigeration by ice-bag or Leiter coil for 24 or 48 hours are beneficial, sometimes curative.

The question of incision of the drumhead was discussed from a conservative and from a radical standpoint. The writer was radical in his views because of the lack of proportion between the earache and the causal infection. He was not inclined to believe that it aborts mastoiditis. As many cases of mastoiditis occur now as in the days of conservatism. The incision in the drum should begin below, because the drumhead slopes downward and inward, and because the drumhead is less sensitive below than above. Pressure should not be exerted by the knife, since the pain of cutting results as much from tactile sensibility as from solution of continuity.

Local anesthetics are disappointing. General anesthesia or anesthesia gained from compression of th carotids (Javanese method) are reliable. The after-treatment of the incision should be that prescribed by general surgery.

In conclusion the writer mentioned preventative treatment. Preventative treatment aims to diminish infection in the nose and throat during the course of infectious diseases by sprays of antiseptic oils or by applications; to treat colds in children more rigorously; to remove adenoids and a catarrhal dyscrasia by appropriate local surgery and general medical means; to interdict forcible blowing of the nose, especially during a cold; to keep the head high in children whose ears are likely to be affected; to examine frequently the ears of children who have obscure diseases or who have symptoms unusual to the disease in hand. Aural diseases may exist and the child may not appear to have earache and not know how to express or to localize pain.

Statistics show that acute otitis media is more often thought to be pneumonia than any other condition. They also show that one-third or one-half of the babies with disturbances of nutrition develop middle-ear inflammation. Therefore the ears should be examined as a routine procedure.

Dr. D. S. Dougherty opened the discussion of Dr. McAuliffe's paper. He emphasized the necessity of free and early incision in a case of acute otitis media. He did not advocate making the incison immediately upon the occurrence of pain or of slight reddening of the drum, but in children this might be wise. He had seen several ears affected as a sequel to measles, and in some of them he temporized, and on looking at them the next day, found the drum had ruptured itself. He also advocated making a wide, sweeping incision, opening the flap freely.

Dr. Abraham said it had been demonstrated by Geieger and Lannoys that the normal tympanic cavity is free from bacteria. Therefore inflammations of the middle-ear following sea bathing must be due to the entrance of the water into the middle ear through the Eustachian tube, carrying with it pathogenic micro-organisms from the nasal and nasopharyngeal cavities. He thought the nasal douche the direct cause of many attacks of middle ear inflammations. The faulty method by which some persons blow the nose, holding one side and exerting pressure on the other, also accounts for many attacks of otitis.

He differed with Dr. McAuliffe only with regard to paracentesis and wished to add a few local applications that had proven very successful in his own work. He classified acute middle-ear diseases into acute catarrh and

acute inflammation and suppuration of the middle ear. In acute catarrh it is absolutely unnecessary to perform paracentesis in the majority of cases. Of fourteen cases of acute middle ear diseases seen by him during the last few months, five were of a suppurative character and the others were entirely catarrhal. In the former paracentesis was performed in every case, thoroughly and radically; in the remaining nine cases paracentesis was performed in only one.

Dr. Quinlan said that a hot bichloride douche of solution of mercury would sooth the ear. He said that when incision was made in the drum, a smear should be made at once to see whether any infection was present.

Dr. McAuliffe closed the discussion, saying that while the bichloride might relieve the pain, it relieved only the outside tissues and a great deal of inflammation might go on beyond these tissues and the bichloride would have no effect whatever.

NEWS, NOTES AND ANNOUNCEMENTS.

Burlington and Chittenden County Clinical Society.—The regular meeting was held at 162 College Street, third floor, Thursday, April 28, 1904, at 8.30 P. M. Programme:

Empyema in Children with Especial Reference to Diagnosis and Treatment,
Dr. G. R. Pisek, New York City.
The Doctor from the Lawyer's Point of View,
Mr. W. L. Burnap, Burlington.
General discussion.

C. H. Beecher, M. D., Secretary.

Tom's Insanity.—It is recorded of a much-neglected and long-suffering wife called upon to give evidence as to her husband's insanity when he was on trial for embezzlement and had set up that plea in defense, that she raked up every possible incident in his life that might show his mind to be unbalanced. Most of them were unimportant and unconvincing. Finally turning to the Justice, she said: "Tom has broken his marriage vows repeatedly for years back, and has always denied it; but lately he has been telling me two or three times a day what a bad, unfaithful husband he has been all these years. Now, you know, Judge, no man in his right mind ever owned up to such things as that." The jury took that view of it and acquitted the man.—*Leavenworth Times.*

Easy Cure of Stammering.—*Health,* of London, Eng., gives the following:

"A gentleman, who stammered from childhood almost up to manhood, gives a very simple remedy for the misfortune: 'Go into a room where you will be quiet and alone, get some book that will interest but not excite you, and sit down and read two hours aloud, to yourself, keeping your teeth together. Do the same thing every two or three days, or once a week, if tiresome, always taking care to read slowly and distinctly, moving the lips and not the teeth. Then in conversing with others, try to speak as slowly and distinctly as possible, and make up your mind that you will not stammer.

" 'Well, I tried this remedy, not having much faith in it, I must confess, but willing to do almost anything to cure myself of such an annoying difficulty. I read for two hours, aloud, with my teeth together. The first result was to make my tongue and jaws ache—that is, while I was reading; and the next, to make me feel as if something had loosened my talking apparatus, for I could speak with less difficulty immediately. The change was so great that everyone who knew me remarked about it. I repeated the remedy every five or six days for a month, and then at longer intervals, until cured.' "—*Practical Medicine.*

The Vermont Medical Monthly.

A JOURNAL OF REVIEW, REFORM AND PROGRESS IN THE MEDICAL SCIENCES.

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Burlington, Vt., April 26, 1904.

EDITORIALS.

A UNIQUE EXPOSITION.

The recent exposition arranged by the Tuberculosis Commission of Maryland was one of the most successful affairs ever held in this country. It was designed at first to be entirely local in character, to impress the people of Maryland with the importance of the tuberculosis problem and to demonstrate in a graphic manner the best means of combatting this disease. But the project grew so rapidly that before its promoters knew it, the Baltimore Tuberculosis Exposition had reached national proportions.

The leading tuberculosis students from all over the United States and Canada were attracted to the meeting and it is needless to say that they were well paid for attending. The meeting lasted six days and each afternoon and evening papers or addresses were given by such prominent men as Hoffman, the statistician, Flick, Knopf, Adami of Montreal, Ravenel, and others. These addresses were eminently practical and covered the whole subject in an interesting and popular way. The public showed a wonderful interest in the proceedings, as it was hoped they would, and great good must certainly result. The exhibits under the efficient charge of Dr. Fulton were instructive and unusually complete and many thousands of the laity as well as medical men examined them.

In every way, the Exposition was a remarkable success, and the Maryland Tuberculosis Commission deserves the highest commendation for their enterprise and hard work. The Vermont State Tuberculosis Commission fortunately attended this important Exposition, and were thus able to meet a large number of their fellow workers from other States.

THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF VERMONT.

The Medical Department of the University of Vermont is to have a new handsome building to replace the one destroyed by fire last December. Active steps are being taken for its early erection and it is expected that it will be ready for use at the opening of the Fall lectures.

This will be satisfactory news to the medical alumni, who follow the fortunes of their Alma Mater with more than passing interest. The University of Vermont Medical Department has been doing splendid work during the past fifty years, and never better than has been done during the recent days of misfortune. A strong effort is being made to raise a tangible appropriation and if the Alumni will come forward and do their share, the future of the Medical Department will be a bright one.

The Faculty are full of enthusiasm and courage and now, if ever, the graduates of the institution should stand by them. Twenty-five or fifty dollars is not a large sum for any alumnus to give to his Alma Mater, but when multiplied by one thousand it will go a long way toward the sum that must be raised. The institution will go forward to a success-

ful future whether the money comes from the alumni or not, but if the burden of the Trustees can be lightened to any degree, support and contributions should not be withheld by those who appreciate the benefits of the past and hope for its success in the future.

EDITORIAL NOTES AND CLIPPINGS.

THE DANGERS OF ACETANILID.—There has recently been considerable discussion among statisticians and sanitarians both in this country and in England as to the cause of the increase which has been apparent during the last three or four years in the number of sudden deaths from heart disease. It has been suggested and with considerable reasonableness that many of these deaths were due to the increased use of acetanilid by large numbers of the people. There are two chief methods in which acetanilid is obtained by the people. One is in the form of headache powders which every druggist is aware are consumed in enormous quantities by all classes of the people. These powders are extensively advertised and freely bought over the drug store counter and are also sold in many large department stores. They all cantained acetanilid, a powerful cardiac depressant which causes destruction of the blood corpuscles and transforms the hemoglobin into methemoglobin. This drug is unquestionably a powerful tissue poison and if used at all—and it is doubtful if it is ever indicated, should only be taken by the direction and under the observation of a physician. Phenacetin has the same antipyretic and analgesic properties as acetanilid without its dangers and should always be prescribed. Phenacetin, however, is much more expensive than acetanilid and as it is a drug which has been in very general use by physicians during the last few years, and as it closely resembles in appearance and in its general properties acetanilid, it has been discovered that large numbers of druggists in New York and doubtless elsewhere as well, have been in the habit of substituting the latter, charging for the more expensive drug and dispensing the cheaper. The New York Board of Health purchased through its inspectors 373 samples from as many druggists, asking in each case for phenacetin. On analysis it was discovered that out of the 373 samples 58 only were pure phenacetin, 315 were adulterated with acetanilid and 32 samples were pure acetanilid. This was at the beginning of 1903 and the facts having been published and the druggists warned that a second offense would mean prosecution, there was immediately a marked diminution in the amount of acetanilid dispensed and oddly enough the vital statistics for New York for 1903 showed a considerable falling off in the numbers of sudden deaths from heart disease. During the previous two years these deaths had been steadily increasing. We are well aware of the fallacy of such statistics and do not admit that the relationship between the popular use of acetanilid and sudden death from heart disease has been demonstrated, but we do think that the matter is of sufficient importance to warn physicians and through them their patients of the undoubted dangers of acetanilid taken in the form of headache powders, or otherwise and to warn druggists that substitution is a crime carrying with it a heavy penalty for the offender.—*St. Paul Med. Journal.*

WHEN YOUR CASE IS WEAK ABUSE THE OTHER SIDE.—This maxim has been a favorite standby with the legal profession from time immemorial and unfortunately certain pharmaceutical manufacturers have recently seen fit to make use of that maxim. This is particularly true of the manufacturers of a certain iron preparation.

The impudence and effrontery with which these people try to hoodwink the medical profession is rather remarkable.

No other preparation ever came before the medical practitioner with so little detail as to methods of preparation, composition, therapeutic effect, etc., etc., and nevertheless the profession is asked to accept the wildest and most extravagant statements as to its wonder working capabilities. This is not all. The makers of this preparation, in seeking the support of the profession covertly attack and sling mud at all other iron preparations that have been before the profession for years. They single out Pepto-Mangan, a combination which has stood the tests of the leaders in the scientific medical world, both here and abroad, an organic iron combination in which, in its results, the general practitioner and the hospital clinician have learned from experience to place implicit confidence.

This unbusinesslike method of attempting to cast discredit upon other reliable and thoroughly tested combinations we cannot term otherwise than despicable, and furthermore we know our readers cannot be influenced by unsupported statements of financially interested parties, but will always bear in mind that Gude's Pepto-Mangan was submitted to the profession as an organic iron product, and the results obtained by its use, as also the scrutiny of analysis by chemists of repute, substantiate all that has ever been claimed for it.

Attempting to foist upon the attention of the physician a product simply by insinuation that known articles are inferior, is a manner of doing business which should receive the stamp of disapproval by every one of our profession.—*Toledo Med. and Surg. Reporter.*

MEDICAL ABSTRACTS.

THE TREATMENT OF PNEUMONIA IN CHILDREN.—An important discussion on the treatment of labar and brocho-pneumonia in children was carried on recently at the New York Academy of Medicine, Section of Pediatrics. The pathology, symptomatology, and diagnosis all received careful consideration, but we shall consider here only that which related to the treatment of the disease. Prof. J. E. Winters, speaking of lobar pneumonia, said there was a great difference between the disease in adults and in children. In children lobar pneumonia most frequently terminates in recovery, almost independently of treatment. It was, therefore, important that whatever treatment be employed, it should be of a character to disturb the patient as little as possible. The patient's bed should be warm, and the temperature of the room at least 72° F. A cool room is, in his opinion, very injurious, because that often means a cold skin, a cold skin means contracted cutaneous vessels, interference with elimination of heat, and consequent increased work for the heart, and increased congestion of the pulmonary vessels. He is very decidedly opposed to cold applications, first because they cause a rise in the internal temperature, and, second, because they cause in children intense nervous excitement, and any struggle on the part of the child must result in weakening its resistance and in elevating the temperature.

His method, in brief, is as follows: The child is wrapped in flannel, and put in a crib in a part of the room protected from draughts. For the nervous excitement, small doses of the "old-fashioned" Dover's powder are the best. The speaker laid special stress on this point—on the superiority of the Dover's powder made with potassium sulphate over the one made with sugar of milk, and the statement is apropos here, parenthetically, that we have

heard the same remark recently from a number of physicians. It is hardly probable that the small dose of potassium sulphate should possess some peculiar medicinal virtues; it is possible, however, that the use of potassium sulphate crystals necessitates longer and more thorough trituration, thus rendering the mixture of the opium and ipecac more nitimate. Thorough trituration is known to be an important factor in the preparation of a reliable Dover's powder.

In the early stages, Prof. Winters gives aconite combined with sweet spirit of niter, 20 drops of the latter every hour to an infant one year old. He avoids alcohol as a rule, but when required, as it occasionally is in the crisis, he gives it in liberal doses per rectum. Oxygen he considers as valuable as whiskey or strychnine to support the failing powers, but it must be given continuously. The food is reduced in quantity and water should always be given to the little patient before he is offered any food.

Dr. R. G. Freeman considered that the principal point in the treatment of pneumonia in children is to keep the heart and gastro-intestinal canal in good condition. Distention of the abdomen must be prevented, as it is a very disagreeable and dangerous complication. Alcohol should be postponed to the later stages and if the heart shows symptoms of failing, digitalin should be used hypodermically. He considers oxygen a useful heart sustainer.

Dr. Charles G. Kerley disagreed with Dr. Winters as to the use of cold. He said that the cold pack was just the thing to quiet delirium, induce sleep, and reduce the temperature. Digitalis he rarely used, and alcohol only when stimulation by other means failed or when the assimilative powers were very low. He used no oiled silk or cotton jackets, because they were uncomfortable and made the child more sensitive to cold during convalescence. In broncho-pneumonia, which is not a disease terminating by crises, certain additional measures were required. A mustard jacket and steam inhalations were useful in the early stages. The mustard paste is made by mixing 1 part of mustard with 2 parts of flour; it is applied at intervals of four hours, and kept on until the skin is thoroughly reddened. The steam inhalations consist of 20 drops of creosote to a quart of water, and are to be given every half hour. These are of great value in broncho-pneumonia.

Dr. Henry Koplik agreed with Dr. Winters as to use of cold. He said that as a rule children did not react well to cold. Aconite and strychnine in the hands of the young physician are dangerous weapons in pediatric practice. He disagreed with the other speakers as to the use of alcohol, which he considered valuable both as a medicine and as a food.

Dr. Walter Lester Carr called attention to the great importance of differentiating between lobar pneumonia and lobular or broncho-pneumonia, the former required very little treatment, while the latter frequently demanded energetic measures.—*Merck's Archives.*

STRAY THOUGHTS.

"In all my experience as a physician I have not seen more than a dozen men or women who have been improved morally by long-continued suffering. Acute illness and illness which brings the patient close to death often have a beneficial effect upon the disposition, but I cannot agree with the assertion which we frequently hear made in the pulpit that suffering is usually the means of refining. I have seen a few isolated cases in which this was so, but it is not the rule by any means. The chronic invalid is almost invariably selfish and peevish, and it is a hard task to find a nurse who can stand the strain of such a service."—*The Medical Times.*

EXHAUSTIVE NERVES.—Few hard workers realizes the danger of working when the nerve cells have exhausted their vitality. No good engineer would think of running a delicate piece of complicated machinery when the lubricant is used up. He would know that, the moment the oil has ceased to be effective, and the bearings begin to chafe and become heated, the harmony of the mechanism will be destroyed, and the friction and discord will soon ruin the delicate adjustment of the machine.

But hundreds of level-headed men, (in other respects,) who are engineers of the most marvelous pieces of machinery ever devised, even by the great Creator-machinist,—machines fearfully and wonderfully wrought,—run their engines, their human, throbbing organizations, so delicate that a particle of dust or friction anywhere may throw the whole fabric out of harmony for days or weeks, without proper cleaning or lubrication.

Plenty of sleep and abundant recreation out of doors, especially in the country, are the great lubricants; nature's great restorers, refreshers, without which long-continued good work is impossible.

Nerve specialists say that a great many suicides are the direct results of exhausted brain cells.

When you find yourself becoming morose and despondent, when you are conscious that the zest of life is evaporating, that you are losing the edge of your former keen interest in things generally, and that your life is becoming a bore, you may be pretty sure that you need more sleep, that you need country or outdoor exercise. If you get these, you will find that all the old enthusiasm will return. A few days of exercise in the country, rambling over the hills and meadows, will erase the dark pictures which haunt you, and will restore buoyance to your animal spirits.

No man is in an absolutely normal condition until he enjoys bare living, and feels that existence itself is a precious boon. No one is normal who does not feel thankful, every day, that he is alive, and that he can think and act with vigor and effectiveness.

Oh, to be strong; to feel the thrill of life in every nerve and fiber in middle life and old age as in youth; to enjoy existence as do the young lambs and calves which chase one another over the fields and meadows and pastures; to exult in mere living as boys do when they glide over the fields of ice in the crisp air of winter!

NEWER REMEDIES.

PROGRESS IN TREATIING NOSE AND THROAT DISEASES.—A striking illustration of the steady advance in therapeutic methods can be seen by comparing present methods of treating affections of the ear, nose, throat and lungs with those employed ten or twelve years ago. No more than ten years ago constitutional medication was largely depended upon in treating this class of cases. Such local medication as was employed had to be applied in the form of coarse sprays and pigments or by inhalation of vapors from volatile medicaments. In middle ear cases the Politzer bag was used for inflating the drum and applying volatile vapors.

It is no longer necessary to depend on these antiquated methods, thanks to improved appliances—the result of American inventive genius.

The progressive doctor now treats affections of the ear, nose, throat and lungs by applying suitable medicaments directly to the affected parts. By the process of nebulization, both volatile and non-volatile medicaments are transformed from a liquid state into a visible, smoke-like vapor consisting of minute particles of the liquid, so infinitesimally small that the vapor can be applied to any part of the body to which the air itself is accessible.

By using an up-to-date Globe Nebulizer Outfit the nebulized vapor can be applied under any desired pressure, the pressure being controlled automatically. Either a continuous or an interrupted current of compressed vapor can be employed as may be desired in any individual case. In this way positive medication is combined with mechanical manipulation of parts to which neither medication nor manipulation can be successfully applied by any other means. Thus the lungs may be inflated or expanded with compressed, nebulized vapor to which a vibratory effect may be given by rapidly interrupting the current. The middle ear, naso-pharynx and connecting sinuses may be similiarly treated. The term "Vapor Massage" has been applied to this method of administering nebulized vapor, which was first suggested and described about nine years ago by Dr. Dunlap, who designed the special valve mechanism used with the Globe Multinebulizer to produce the effects above described.

Dr. Dunlap has recently designed a Compressed Air Vibrator, which can be used in connection with the Massage Valve of the Globe Multinebulizer to produce extremely rapid interruptions of the current of compressed, nebulized vapor. By this means the ear drums and nasal sinuses can be inflated at the rate of two thousand to three thousand impulses per minute, producing distinct vibrations, and thus combining positive inflation, medication and vibration in a single treatment. The same vibrator effect can be secured in treating pulmonary cases. The term "Vapor Vibration" has been suggested to designate this method of treatment.

In addition to the purposes above described, the Vibrator is admirably adapted for vibration as applied to any portion of the body.

Every physician who is interested in up-to-date methods should write the Globe Manufacturing Co., Battle Creek, Mich., for illustrated literature relating to the above mentioned appliances and other apparatus manufactured by them.

THE TREATMENT OF SEROUS EFFUSIONS.

Abstract of a Clinical Lecture delivered at the Liverpool Royal Infirmary.

By James Barr, M. D., F. R. C. P.

(*The British Med. Journal, March 19, 1904.*)

The author describes what is evidently a new method of treating serous effusions. The idea occurred to him to inject one fluidrachm of Adrenalin Chloride Solution into the pleural sac, in a case of abdominal cancer extending to the pleura, after the aspiration of a large quantity of bloody serum, the object of the injection being to lessen the secretion. There was no further secretion, consequently no further tapping and the patient spent the remainder of her life in perfect comfort so far as her chest was concerned.

This treatment was extended to cases of ascites due to hepatic cirrhosis in which marked results were not expected. However, the rapidity of secretion was diminished and no ill effects were noted, the quantity of Adrenalin Solution used varying from two or three fluidrachms.

In a case of pericarditis with effusion, in a lad, 19 fluidounces of serum was withdrawn from the pericardium, but a reaccumulation rapidly followed. The patient's condition becoming critical the paracentesis was repeated, 20 ounces of fluid being withdrawn with immediate improvement in the quality of the pulse. Forty minims of Solution Adrenalin Chloride, 1-1000, was injected into the pericardium. The pulse at the wrist disappeared, the boy became of an ashy leaden hue and had an anxious expression. Immediately nitroglycerin and atropin were administered and the boy quickly rallied. No further tapping was required. The same patient had a subsequent attack of left pleurisy with effusion. Ten fluidounces of serum was withdrawn from the chest and one fluidrachm of Adrenalin Chloride Solution was injected. There was no reaccumulation.

In a case of tuberculous peritonitis and ascites 200 fluidounces of serum was drawn and two fluidrachms of Solution Adrenalin Chloride introduced into the peritoneal cavity, with

four pints of aseptic air (to provent adhesions). Thirteen days later 237 fluidounces of serum was withdrawn and two fluidrachms of Adrenalin Chloride Solution and two pints of air were injected. Upon a third occasion, eleven days later, 196 fluidounces of serum was obtained by tapping, and three fluidrachms of Adrenalin Chloride Solution and four pints of sterile air were injected. No reaccumulation of fluid occurred.

A female child of seven years was the next patient. One pint of fluid was withdrawn from her pleural cavity and one fluidrachm of Adrenalin Chloride Solution and half a pint of sterile air were injected. Though it was highly probable that the pleurisy was tuberculous there was no reaccumulation of fluid and the patient recovered.

MEASLES.

By Burton Bohannon, M. D.

Since the beginning of the winter months, about December 1st up until the present time, I have treated over seventy cases of measles in the hospital. Out of this number about thirty per cent. manifested severe catarrhal conditions, while probably ten per cent. were malignant conditions. Out of the total number of cases the percentage of deaths was about four per cent. and this four per cent. represented those cases of strumous diathesis or severe glandular conditions followed by malignancy.

Measles as a rule, under proper hygienic surroundings and without complications, is a condition not to be feared by the medical profession or even by the laity, but when accompanied by severe catarrhal conditions or glandular affection or followed by some lung or bowel trouble it is no longer a simple condition, but one which needs immediate attention.

Speaking of local treatment, I find that Glyco-Thymoline and water, equal parts of each, or occasionally one part Glyco-Thymoline to two parts water used as a spray for mouth, throat and nose is very beneficial, not in the same manner as peroxide of hydrogen, but as a healer of mucous membranes. If the catarrhal conditions extend down into the bowels, I either use it internally or in enema and have found it excellent. I attribute a great deal of my success in these seventy cases of measles to the free and liberal use of Glyco-Thymoline. Its pleasant taste and special adaptation to mucous membranes and inflammatory surfaces, should find it a permanent home in every hospital.—*St. Louis Childrens' Hospital,* June 6th, 1903.

In spite of Teachers and Text Books, the days of the cotton jacket and the linseed poultice seem to be past. Perhaps the applications valued most highly by medical teachers at this time are the cold ones either in the form of ice-bags or cold compresses frequently changed. These when placed over the seat of disease, seem to give decided relief, to modify the temperature, and to hasten early resolution. But in spite of their advocacy in the text-books, the rank and file of the profession do not take to them kindly.

Antiphlogistine now enjoys perhaps greater popularity in the treatment of pneumonia and other acute respiratory diseases than any other local application. This popularity seems to be well-deserved. It may not modify the course of the disease to any great extent, but it certainly proves of the greatest comfort to the patient, and helps to ameliorate some of the troublesome symptoms which are characteristic of the disease. Antiphlogistine must therefore be considered a distinct addition to our therapeutic armamentarium.—*The Medical Standard, March, 1904.*

INFANTILE ANÆMIA.

Report of 32 Cases Treated at City Infants' Hospital, Randall's Island, New York City, during a period of four months, by Mateo M. Guillen, M. D., House Physician and Surgeon.*

The various conditions of blood impoverishment grouped under the general head of "Anæmia" have been the subject of empirical study and treatment since the beginning of medical history, there being no scientific data giving us a correct guide for either recognizing the condition or noting any improvement therein. With the development of the science of hæmatology, the clinician has been given a definite index of the true condition of the blood and the effect of treatment upon the same; and so from this point each stage of improvement and what would cause improvement could be studied.

Thus far, however, this has been true only

* Including several cases not infants.

of the blood of adults; the hæmatology of infants is still under investigation, comparatively little work having been done in the line of controlling by laboratory methods the improvement of infantile anæmia under certain therapeutic measures.

With this end in view the author took advantage of the opportunity afforded by the almost inexhaustible material at this hospital, feeling that it would be of interest, both to himself and the profession at large, to watch the improvement of the blood of these patients under the influence of iron.

We chose iron as our hæmatinic, first, because we believe it to be the most easily borne drug of its class; second, because our investigation was carried on during the summer months, when cod-liver oil is contra-indicated. We selected what we considered the most bland and unirritating preparation of iron, Pepto-Mangan (Gude), and our judgment was justified, as in no case did we have to suspend treatment on account of any untoward influence on the delicate organisms of sick infants. Only in a few cases were we obliged to resort to the occasional aid of a laxative to overcome any constipating influence.

Our selection of cases included the widest range, consisting of anæmia of tuberculosis, marasmus, broncho-pneumonia, gastro-enteritis; in fact, the whole gamut of the common diseases of infancy.

In each case an exact and painstaking blood examination was made before giving the remedy, and, after a specified time, a second count was taken. We will first append a graphic chart, showing the effect of the treatment in each case, and then proceed to the consideration of some of the cases in detail.

The following are some of the case-histories of especial interest:

Case I.—E. P., aged seventeen months; admitted May 6, 1901, age four months. Mother died when child was two days old; no history of syphilis or tuberculosis. On admission had a mottled, bluish appearance; slight discharge from the eyes; greatly emaciated; physical condition apparently hopeless; weight five pounds eight ounces. Was wet-nursed until May, 1902. At this time (May 3) it weighed fifteen pounds four ounces; had a large abscess back of ear. June 11, 1902—Showed a waxy pallor, marked anæmia of conjunctivæ and other mucous membranes; spleen perceptibly enlarged; liver slightly so; axiliary, cervical and inguinal lymphatics also enlarged. Blood examination.—Red cells, 3,366,00; white cells, 16,000 per cmm. Hæmoglobin, 20%. Differential count of the leukocytes showed 48% of lymphocytes. Treatment—Pepto-Mangan (Gude) 3ss, t.i.d. July 22, 1902—Patient somewhat improved, weighs eleven pounds twelve ounces. Combined arsenic with Pepto-Mangan. August 11, 1902—Weight sixteen pounds twelve ounces. September 16, 1902—Weight nineteen pounds eight ounces. Patient's general condition very much improved; color very much better; patient cheerful and beginning to walk. Blood examination—Red cells, 3,466,666 per cmm.; white cells, 8,000 per cmm. Hæmoglobin 58%. Glands, spleen and liver stil enlarged, but becoming smaller.

Case II.—K. T., aged twenty-four months, female, white. Admitted June 1. General condition fair, nourishment fair, color pale. Had scarlatina five months ago and diphtheria two months later. Bowel movements have been loose, green, offensive, with some mucus for the last few days. Slept well, appetite poor. Very thirsty. June 11—Child emaciate", very weak and pale. Mucous membranes of conjunctivæ, lips and mouth very anæmic. Appetite poor. Bowel movements have been yellow for the last two days. Child had never walked. Blood examination—Red cells, 2,533,333 per cmm.; white cells, 10,000 per cmm. Hæmoglobin, 40%. Treatment—Pepto-Mangan (Gude) 3 j. t. i. d. July 1—Patient has improved some; three pounds gain in weight. August 8—Very much improved; has gained seven pounds. September 2—Patient apparently in good health; is able to walk. Blood examination—Red cells, 4,851,851 per cmm.; white cells, 7,133 per cmm. Hæmoglobin, 75%.

Case V.—H. V., aged nineteen months, female, white; twin sister of Case IV.; admitted June 11, 1902. Mother died of pulmonary tuberculosis; a young brother also died of the same cause; father tuberculous. Since admission has been delicate and anæmic. Had several attacks of bronchitis. Bowels normal. Blood examination—Red cells, 3,132,000 per cmm.; white cells, 5,600 per cmm. Hæmoglobin, 57%. Treatment—Pepto-Mangan (Gude) 3 j, t. i. d. July 12—Child improving very much and gaining in weight. August 11—Patient had a rash all over the neck and spreading down the body; Koplick's sign present. Diagnosis, measles. Removed to quarantine

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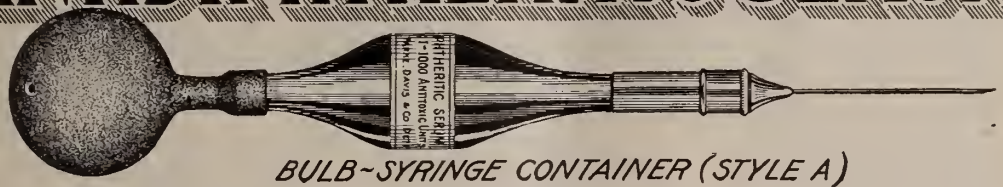

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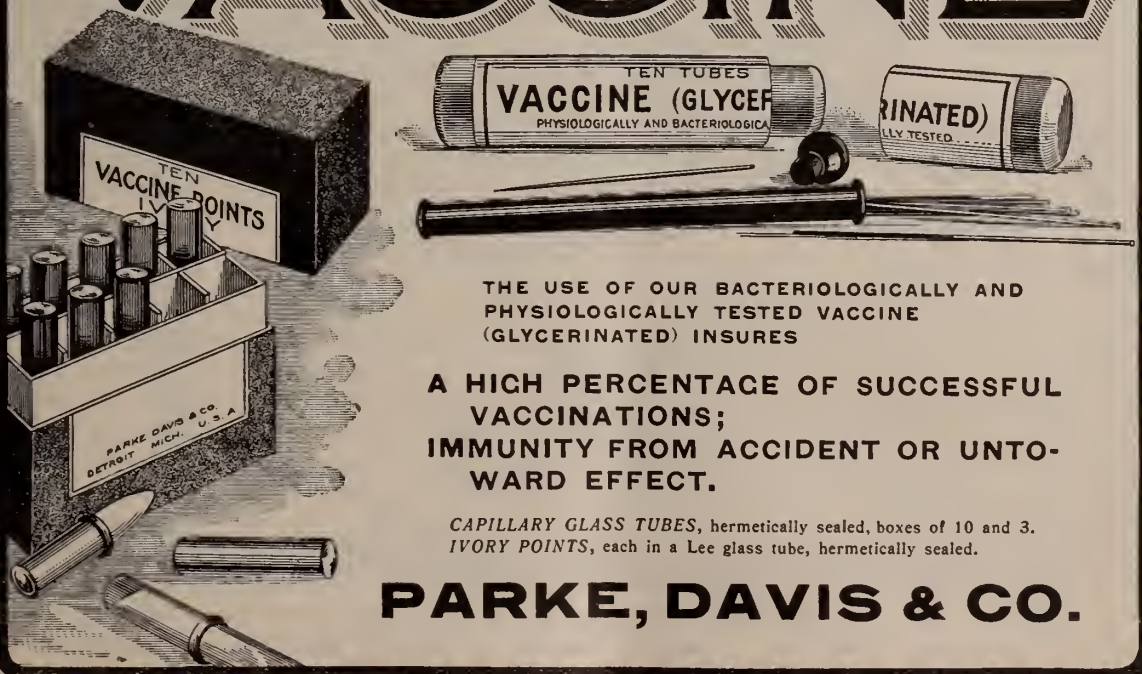

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ward. August 18—Child had very bad cough; consolidation in upper left lobe. Blood examination—Red cells, 4,580,851 per cmm.; white cells, 12,300 per cmm. Hæmoglobin, 69%. The child looked very ill; high temperature and frequent respiration. August 25—The patient was very weak. Broncho-Pneumonia over back of both lungs. Refuses nourishment. Blood analysis shows very marked anæmia and leukocytosis (sepsis). Red cells, 3,012,300 per cmm.; white cells, 15,600 per cmm. Hæmoglobin, 40%. August 29—Patient died. Autopsy revealed Broncho-Pneumonia of both lungs and tubercular bronchial glands.

Case XIX.—W. B., colored, male, aged three and one-half years. Admitted June, 1902, having come to us from Dr. A. Jacobi's ward, Roosevelt Hospital, with the diagnosis of pulmonary tuberculosis. Patient had been apparently well until nine months ago, when he had an attack of pneumonia, from which he never fully recovered. His condition was extreme; emaciation, harrassing cough, sputum contained tubercle bacilli. Two weeks after admission he had a pulmonary hæmorrhage of about six or eight ounces, brought on by a severe attack of coughing. He was confined to bed for ten days. Temperature 104°, pulse 164, respiration 64. After that he was kept in the fresh air daily. Blood examination—Red cells, 3,947,676 per cmm.; white cells, 10,500 per cmm. Hæmoglobin, 42%. Treatment—Guaiacol carbonate and Pepto-Mangan (Gude) ʒ j, t. i. d. September, 1902—Blood findings, red cells, 4,977,777 per cmm.; white cells, 9,500 per cmm. Hæmoglobin, 58%, which was an increase of 1,000,000 of red cells, and 16% of Hæmoglobin. His weight had increased considerably, and he was able to walk about. Respiration had fallen to thirty-four. He was scarcely to be recognized as the same child of four months previous.

Case XXIV.—L. K., aged nine years, white, male. Admitted June, 1902. Physical condition fairly good; had diphtheria four years ago; measles last year; otherwise healthy; he was growing rapidly. Mucous membranes anæmic. For the last two years has taken Pepto-Mangan (Gude) at irregular intervals, when his condition would invariably improve. Blood analysis—Red cells, 4,678,594 per cmm.; white cells, 7,100 per cmm. Hæmoglobin, 72%—a moderate amount of simple anæmia. Treatment—Pepto-Mangan (Gude) ʒ j, t. i. d. given for four months. September 20—Appearance constantly improving. Blood count—Red cells, 5,280,989 per cmm.; white cells, 6,400 per cmm. Hæmoglobin, 82%.

Cases XXIII and XXVIII were also cases of simple anæmia, similar to the above.

Case XXIX.—J. D., aged four years, white, male. Admitted July 8, 1902. Patient had been suffering from Pott's disease for a year and at times had very acute pains. He was unable to walk any distance without crying out from pain, and held himself from the table or bed to relieve pain. Deformity is marked and tender. Lesion extends from the seventh to the tenth dorsal vertebra. Physical condition poor; anæmic. Blood examination—Red cells, 3,979,888 per cmm.; white cells, 9,000 per cmm. Hæmoglobin, 66%. Patient was placed on a Bradford frame and kept in the fresh air daily, taking Pepto-Mangan (Gude) ʒ j, t. i. d. September 20—Patient has improved very much. At first he objected to the frame, but now he cried when removed from his portable bed to be washed. He suffered no more pain. Deformity slightly corrected. Appearance improved very much. Blood report—Red cells, 4,898,788 per cmm.; white cells, 7,800 per cmm. Hæmoglobin, 76%, showing increase of red corpuscles and hæmoglobin, and diminution of leukocytes.

Case XXVII resembles the above case sufficiently to need no special description.

Conclusion.—Reference to the table shows that, out of the 32 cases, the hæmoglobin and red blood corpuscles increased in all except 5 cases. An analysis of these may be of interest. In two of them there was before treatment a high red cell and hæmoglobin percentage, followed by a diminution after exhibiting the Pepto-Mangan, but which was accompanied with great subjective improvement. Speculation seems to be justified here that there was a condition of blood concentration—diminution of the whole volume of the blood—before the treatment was begun (Cases XIII. and XVII.). Case V. improved at first, but subsequent complications overwhelmed the little patient. The other two cases unimproved were a case of sarcoma and a case of syphilitic periostitis, the former dying with the progress of the disease, the latter simply remaining unimproved.

On the other hand, there were three cases classed as hopeless that made a complete recovery.

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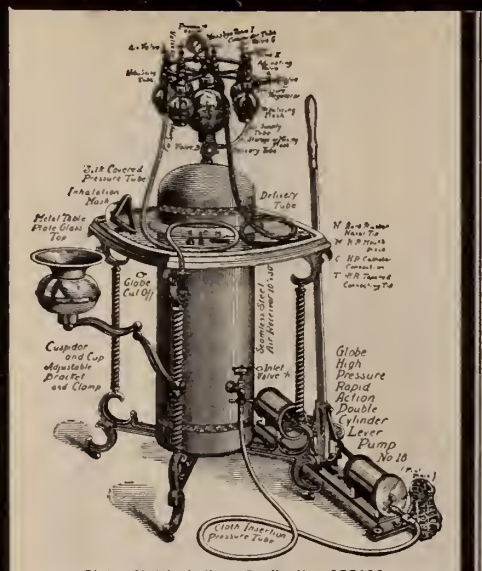

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Vermont Medical Monthly

Official Organ Vermont State Medical Society.

Vol. x. No. 5. Whole No. 113. | Burlington, Vt., May 25, 1904. | $1 per year. Single copies, 15 cts.

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The Vermont Medical Monthly

Vol. X. May 25, 1904. No. 5.

ORIGINAL ARTICLES.

PULMONARY TUBERCULOSIS..*

By D. D. Grout, M. D., Waterbury.

From time immemorial pulmonary consumption has been the curse of the human race and the *bete noir* of the medical profession. Its pathology has gone through various evolutionary stages and propagandists of each stage have vied with each other in relegating the doctrines and promulgations of their predecessors to eternal oblivion.

Its treatment can hardly be said to have been evolutionary, for the term evolution indicates a gradual unfolding or development from a plan. Neither can much of its treatment be said to have been scientific.

Many beautiful theories regarding its treatment have been evolved from wrong premises, only to be discarded for others equally beautiful but quite as fallacious.

Nearly every drug in the whole materia medica has been called into use in its treatment by enthusiasts who seemed to believe that they had discovered the elixir vital. Chemistry and the animal kingdom have contributed each its share. Climatology has been unsuccessfully studied; altitudes have been taken and patients have endured hardships and deprivations and even death in their endeavors to reach the one that happened to be the passing fad of their medical advisers or of solicitous friends. The low, moist and balmy atmosphere of Florida has been tried about equally with that of the high, dry and rigorous air of the Rockies, and with about equal success.

So-called specifics have been discovered and heralded *ad nauseam* and applied internally, and eternally, much to the discredit of the medical profession and to the detriment of their patients.

A little more than a score of years ago a discovery was made that we all believe has started us on the road that leads to a correct and scientific understanding of this dread disease. For twenty-one years we have been studying the tubercle bacillus, and year by year we have learned its habits and various modes of entering the human system, consuming and extinguishing the life of that which was made in God's own image.

No problem before us at present compares in gravity and magnitude, not only to this generation, but to those who come after us, as to the wisest disposal of the consumptive. First, how can we best care for the patient? Second, how can we prevent the spread of the disease? How can we best care for the consumptive? To place him in the most favorable conditions for an arrest or cure and at the same time prevent a spread of infection, allows of much latitude for debate, but at best narrows down to a few cold facts.

Education of the laity, suitable legislation and the hearty co-operation of each medical man in the land.

Tuberculosis annually causes more deaths than any two diseases combined. It is an insidious disease, unlike acute infectious troubles, and the public has learned to look upon consumption as something that has always

* Read at the 90th Annual Meeting of the Vermont State Medical Society.

been with us and accepts the situation as a matter that can not be prevented.

How to educate the masses out of this state of lethargy is a question that should be begun under the head of hygiene in our public schools. Too much attention cannot be given to modern sanitary living quarters with room for an abundance of pure, fresh air and sunshine; at the same time devitalized air should be taught as one of the potent causes of tuberculosis.

I know of no better way to reach the masses on this or any other subject of such vital importance than starting at the fountain's head with the little ones, who in half a generation will have the custorianship of all nations.

Suitable legislation can accomplish much, legal enactments looking to the control of the various means of infection; the enforcement of sanitary regulations, and the assistance in a financial way, in the erection and equipment of sanatoria for the care, treatment and education of the indigent tubercular. And here let me say, that while I believe that properly located and conducted sanatoria can do very much towards the restoration to health of the consumptive, and that it is practically the only means we have at our command to control the disease among the masses, yet I am of the opinion that the chief good that accrues from these institutions is along educational lines. It is self-evident that their work must be restorative in order to become educational. If there never was a case completely cured in these sanatoria, yet their work would be beneficent, for in the incipient cases the benefit derived is so early apparent, and the victim becomes so thoroughly conscious of the improvement that takes place, he invariably becomes a convert to the doctrine of pure air and wholesome food and has his mind disabused of the fetish of "cold drafts," "night air," and "taking cold." Consequently he goes out a missionary among the heathen and benighted, who have for generations vied with each other in their efforts to make their homes as unsanitary as possible by excluding fresh air and sunshine and by filling their houses with furniture, carpets, and draperies that serve no earthly purpose but as harborers of dust, filth and infection.

We must acknowledge that the contagion or infection of any disease must be implanted in the minds of a community before a moral support is given to a health board to stamp out a disease.

It is when boards of health have good laws to prevent the spread of tuberculosis, and the boards of health are assisted by the medical profession, upheld by a people who have been taught the nature of tuberculosis with its various modes of infection, etc., and the means by which it can be contracted, that we expect to see the disease practically abolished from mortuary statistics.

The public mind of America, as well as that of Europe, is becoming aroused as to the ravages of tuberculosis and, at the same time, as to its prevention and curability.

Much unwise legislation has been proposed from erratic, impulsive sources. Some States have introduced bills to prevent the introduction of the tubercular; even a few villages have passed ordinances prohibiting the tubercular from entering their gates. Such legislation is worthless because it is impracticable and will ever remain dead upon the statutes.

Notwithstanding some mistakes have been made along this line, much good has already been accomplished. The civilized world is enlightened as to the great danger that lurks in the consumptive's sputum, and measures have been taken looking to the prevention of its dissemination. States and municipalities are discussing on every hand the disposition of

their consumptive poor; in many instances homes and sanatoria have been established exclusively for the tubercular. Several States have already made contributions and established State institutions for consumptives; other States are formulating plans along this same line; it is entirely logical and but reasonable to expect every city and State in the Union to adopt some practical means for the care of the consumptive poor and to prevent him from infecting others.

Permit me here to quote Dr. Beverly Robinson of New York, who in a recent article says: "To me the idea of sanatoria for the poor brings joy and gladness, because I see in it a prospect of cure for many; prospect of consolation for many more."

To be sure, it will, perhaps, be a long while before we may legitimately hope, even with large and numerous public sanatoria buildings, to meet all requirements of the needy consumptive. But with their existence we shall have accomplished a great and noble, though necessarily limited work, and we shall be able effectively to educate a large and increasing number of sufferers; so that when they return to their homes, stationary, improved, or cured, they will know better how to care for themselves and how to protect others.

As to private sanatoria, especially for the favored ones, and with one or two notable exceptions I frankly confess I do not feel that the return of health and strength to relatively few patients justifies wholly the outlay of money, labor, notoriety, in behalf of these institutions. I may be misinformed or in error, but in many ways I believe such patients, with their own physicians and with large, sunny, well-ventilated rooms, appropriate surroundings, good food, care and discipline, in a well-selected location in the country, would enjoy advantages not fairly counterbalanced by excessive *doing* and *over minute* regulations (often calculated to do more harm than good) of private sanatoria.

What shall we say of our home treatment? To the vast number in our midst at present it is the only available treatment. Even if we could persuade very many among the poor to leave their homes and go elsewhere, there is no institution yet open to receive them. Fortunately, the day of specifics is passing for all honest and intelligent practitioners.

It is useless for enthusiastic and over-zealous men to laud and magnify (after very moderate or wholly insufficient experience and cases) this or that drug, this or that preparation and dreams of cure. Hygiene in its broadest, best sense is, after all, our main reliance, and statistics based upon other means, no matter how favorably interpreted by their warm advocates, meet with little cordial response from those who have learned by long experience to become properly skeptical.

What we want, what we insist upon for our poor, is better ventilation, more and better air, more sunlight, improved plumbing, greater cleanliness in their homes.

To these essentials we add good food, properly prepared and served, a pure and plentiful supply of milk and water. Much of all this means of necessity, therefore, improved tenement houses and under no possible pretext to allow any unjust, iniquitous laws to be passed which will interfere with our ideals or oblige us to take a step backward in our march of progress and greater civilization.

How shall we accomplish this? By education! And we should begin with the physicians. The ideal physician is something more than an expert diagnostician and therapeutist. He should also be an expert sanitarian. He should not only have convictions but the courage to communicate those convictions, and in such a manner as to leave no possible doubt

in the minds of his patients and their attendants, regarding the correctness of his views.

Next in order should be the education of the people and this can be done in the ways before suggested. When this has been accomplished there will be no occasion for sanatoria except for the very poor and for the homeless.

Doubtless this idea is too Utopian to be of very much immediate benefit. And in the meantime, it seems almost obligatory for States and municipalities to make suitable appropriations for the erection, equipment and maintenance of a sufficient number of sanatoria for the accommodation of those who from force of circumstances or inclination may wish to avail themselves of the benefits that may be derived from a sojourn therein; thus a two-fold object will be accomplished, of restoration to health and usefulness of a large number and the education of the people along these lines aided as it can be in no other way.

TEN YEARS' OBSTETRICAL PRACTICE.*

By W. J. Aldrich, M. D., St. Johnsbury.

In preparing the programs for our meetings heretofore, you may have noticed that I refrained from such undue publicity as the assignment of myself to the preparation of a paper might confer, and my apology for appearing and inflicting this upon you to-night is just this: that nearly everybody thanks me for the honor of remembering them on the program and then declines his part, usually because there are so many who could do it better. Right here I want to ask the gentlemen to make a special effort to come to our meetings and each do his part on the program. Then they will be instructed from an educational point, and I am sure the social advantages derived by such a getting together as we have just enjoyed are apparent to you all.

It was my luck to be in practice almost one year before my first obstetrical call came. With what temerity I responded you doubtless all know. My equipment consisted chiefly of a compend on obstetrics, which I consulted whenever the family left me alone for a moment. The patient was a young woman of twenty-six, living with her third husband, and already the mother of four children, all of whom had made their advent into this world in a most commonplace and uneventful manner; so I sought comfort in the probability that number five would get here somehow, and he did, in a perfectly normal way, as quite a varied experience since has taught me, though at the time I regarded that case as a critical one, very skillfully handled; and my preceptor, who has since become my father-in-law, assured my wife on the quiet that I was a natural born obstetrician.

My next call was to give an anaesthetic for Dr. Allen for a forceps case. The delivery of the child was uneventful as far as I can remember, and we were engaged in tying the cord when something called our attention to the patient. She was deathly pale, her pulse disappeared, and a stream of blood the size of my wrist was literally pouring from the vagina. It was only the work of an instant for the doctor to grasp the fundus with one hand and with the other to enter the uterus and remove the placenta, while I gave a hypodermic of fluid extract of ergot which induced a good steady contraction and later resulted in a painful abscess. The woman was almost exsanguinated, pale, covered with a clammy sweat, and a pulse hardly perceptible. Strychnia and whiskey hypodermically, hot bottles on all sides, the foot of the bed elevated and two or more intra cellular saline injections of a pint each, saved the day. Many times since

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* Read before the Caledonia County Medical Society.

in forceps cases have I seen quite interesting hemorrhages, but nothing like this, and now I safeguard my patients in all forceps cases by giving one-half of one grain ergotine by mouth just before beginning the anaesthetic. By the completion of the third stage the effect of the drug is seen and a firm contraction assures that bleeding need not be longer feared. A valuable adjunct when the contraction is slow and bleeding too free is the hot water intra uterine douche. It is invariably a part of my preparation.

In ten years' practice I have had about five hundred cases. Many of them were perfectly natural, both as regards position of the child, the presentation and the mechanism. It should not be forgotten that labor per se is a physiological process, in which our duty is to watch with intelligence the progress of the case The hearty assurance of the physician that everything is all right and that she is doing finely gives renewed courage to the tired and anxious patient; it is only when labor departs from the normal that it ceases to be physiological and becomes pathological.

My first experience with placenta previa came while I was quite young in practice. The patient, a Canadian about 45, was already the mother of thirteen children. A sudden hemorrhage at the seventh month called me to the fourteenth and I found the placenta planted firmly over the internal os. I dilated under chloroform at first with steel dilators, then with my hand, went directly through the placenta, grasped the child by the feet and delivered it feet first. The baby was dead, but the mother is still living. I have had other experiences with placenta previa, some of which I would like to forget. It is a grave condition, and when discovered before maturity by a sudden hemorrhage, it is good treatment to empty the uterus at once, sacrificing the child for the sake of the mother, for if allowed to go on, the child's chances are slim indeed and the mother's none too bright.

My first case of breech presentation was in my own family, and I was nervous enough until it was over. The head was held back some little time, and the little fellow was pretty blue when he finally came along, and the seconds spent in artificial respiration seemed to me like hours. I believe I have had five or six cases since, and no fatalities. I always try not to rupture the dilating membranes until dilatation is complete, for if the parts are well dilated, there is less delay in the passage of the head.

My first craniotomy was over eight years ago. The patent had been in labor all day and all night and the attending physician had tried in vain to deliver with forceps. I was told the child was dead, and I like to think that it was. After a vain attempt to deliver with forceps I perforated the cranium, broke up the brain, twisted off the frontal and parietal bones and finally delivered the child, a very large one, with no injury to the mother except a vesico-vaginal fistula, which I afterward repaired. Two cases since is my record in this operation.

I cannot recall that I have ever had a case of real puerperal fever, but in several instances absorption of septic matter as evidenced by chills, sweating and high temperature. I always irrigate the uterus with 1-5000 bichloride solution, using an irrigating curette and gently going over the endometrium to make sure that no placental tissue or blood clots are retained. In one case I found quite a piece of placenta, badly decomposed, retained in one horn of the uterus, the removal of which promptly put a new look to the case. In another case there was septum dividing the cavity of the uterus into two parts. The patient had aborted at the third month, and in the curetting one side had been overlooked. A

thorough curetting of the overlooked side speedily saved the patient.

In obstetrics, as in surgery, the patient should be safe-guarded by all that cleanliness and asepsis can give. Let the bowels be emptied by a cathartic, the rectum washed by an enema; the external genitals washed in bichloride solution; let the physician wear a clean white frock or gown over his street clothes while in attendance; let his hands be scrubbed with a brush in soap and water in the beginning and rinsed in bichloride each time before making an examination; let all instruments that come into the case be surgically cleaned; let sterilized gauze pads for the vulva supplant the time-honored rags; and if our patient becomes septic the burden of responsibility is not on us. Do not think that I believe all these precautions are absolutely essential to a perfect recovery. I have had many cases, and you all have, where there was no time for any such thing, and the result perhaps was just as good; perhaps not. Certain it is that these things are conducive to an uneventful recovery, and every woman is entitled to them.

A great deal is said and written about meddlesome mid-wifery, meaning the interference by the accoucheur, and the application of forceps. As for myself, I confess to quite a fondness for the forceps. The indications for their use are a subject of much debate. As a general rule we may say that forceps are used whenever the expulsive forces of the mother are unable to overcome the obstacles to delivery. Further, forceps are used whenever great haste in delivery is necessary, as in actual or threatened convulsions and in placenta previa. It is my custom to apply forceps as soon as the parts are sufficiently dilated, unless good progress is being made, in which case I let well enough alone. You will often find a case progressing in a very satisfactory manner until dilatation is complete, the membranes ruptured and the head low down. The position is all right, likewise the presentation, but no progress is made. The head is a snug fit and must needs go through a moulding process to conform to the pelvic outlet, and the woman is tired and her pains are so weak as to be ineffective. Perhaps an opiate would cause a few hours' rest with a cessation of the pains, when on awakening they might have renewed power and quickly expel the child, but such a happy termination is not certain. I have had to apply the forceps after such a rest more than once, and the steady pressure of the child's head on the maternal structures during this rest is disastrous to their integrity. It is in such a case that the use of forceps might be called meddlesome, because not absolutely necessary, but I believe their use is beneficial not only to the mother, but to the child as well. Instead of five or six hours of suffering, the patient awakens from the anaesthetic free from nausea and finds the baby born and herself comfortable. Injury to the child during a forceps delivery is very rare, in fact I have never seen, even in my most difficult cases, any injury of any importance. The benefits to the mother are not imaginary. If it is possible to avoid a laceration of the perineum, I will avoid it with forceps, for by their use I have the head under perfect control. I can make traction as easy and as often as I wish. I can make it imitate labor pains in their intermittency, and I can make it in the proper direction.

In an experience covering ten years it has not fallen to my lot to have twin births, except in a case of abortion at the third month. I once attended a woman in miscarriage who was delivered of two children, one about three months and the other about five. Last fall I was called to confine a young woman primipara; had been well all through preg-

nancy, pains came on Friday evening. I saw her Saturday morning. Everything was normal and I predicted a short labor, saw her every hour or so all the forenoon, and while the pains continued to grow harder, there was not a bit of dilatation. The same was true of the afternoon, and at 5 P. M. the contractions were so painful that I gave one-half grain morphia hypo to give the patient a rest, expecting when the pains came on again their character would have changed, but the morphia had absolutely no effect, and at 10 P. M. she was suffering so intensely that I gave an anaesthetic, dilated the cervix manually, applied the forceps and within thirty minutes of administering the anaesthetic the baby was delivered without a scratch, and without any damage to the perineum. I never was able to explain the peculiarity in these pains, and I have never seen a similar case.

Several years ago I was called to see a young woman primipara, who was aborting at the fourth month. Her pains were frequent and severe, but no dilatation of the cervix occurred. I watched her several hours and still no dilatation occurred. I then gave a hypo of morphia, thinking to give her a rest. Was called hurriedly a few hours later to find the foetus protruding from the vulva, and a severe hemorrhage taking place. The external os had not dilated at all, but the side of the cervical canal had ruptured, severing the circular artery, and the child had passed from the uterus through this slip in the cervix. I sewed up the tear, but failed to get union. Some years later was called to attend this woman at full term, when, strange to say, the slit in the side of the cervix dilated and the child was born through it instead of the external os, and though the child was dead the mother made an uneventful recovery.

If time permitted I might speak of my experience with eclampsia, having seen quite a number of cases, and unfortunately some deaths. If the convulsion occurs before confinement, our aim should be to induce labor at once under an anaesthetic. In many cases there will be no more convulsions. If, however, they persist after delivery administer chloroform to stop the seizure, give morphia hypo in one-fourth to one-half grain doses and fortify it with thirty grain doses of sodium bromide and fifteen grain doses chloral hydrate every three to six hours, gradually reducing the dose of morphia as the case improves. Keep the kidneys and bowels active. When the first warning of eclampsia comes after delivery the outlook is more serious, though the medical treatment does not differ materially from that described above. Phlebotomy is warmly praised in some quarters. I have never tried it, but shall when opportunity occurs.

HEALTH OFFICERS' SCHOOL.

The sixth annual session of the Vermont Health Officers School will be held at Burlington, June 27th to 30th inclusive. The meetings will be held in the Y. M. C. A. Hall as heretofore.

The following program has been arranged by the State Board of of Health:

MONDAY, JUNE 27TH.

EVENING SESSION, 8.00 O'CLOCK.

Remarks, "The Sanitary Conditions in Vermont," by Charles S. Caverly, M. D., President of the State Board.

Address, "The Treatment and Control of the Consumptive in His Home," by Lawrence F. Flick, M. D., Director Phipps Institute, Philadelphia, Pa.

Discussion, Dr. D. D. Grout, Waterbury; Dr. N. W. Bryant, Ludlow; Dr. C. W. Peck, Brandon.

Tuesday, June 28th.

morning session, 9.30 o'clock.

Paper, "The Financial Side of a Smallpox Outbreak," by H. L. Stillson, Bennington.

Discussion, C. B. Kent, Dorset; Geo. H. Dunsmore, St. Albans Town.

Paper, "Disinfection and Disinfectants," by Dr. A. L. Bingham, Williston.

Discussion, Dr. Joe Jackson, Barre; Prof. J. N. Jenne, Burlington.

afternoon session, 2.00 o'clock.

Paper, "Schoolhouses, Sanitary and Unsanitary," by Dr. A. C. Norton, Middletown Springs.

Discussion, H. V. Hubbard, Barnard; Dr. H. H. Seeley, Richmond; Dr. D. C. Noble, Middlebury.

Paper, "Quarantine: The Family, Attending Physician, and the Public," by W. Lindsley, M. D., Montpelier.

Discussion, Dr. Joseph Bretling, Lunenburg; Dr. S. H. Phelps, Fairfax.

evening session, 8.00 o'clock.

Illustrated Lecture, "The House, Its Development, and Relation to Sanitation," by Geo. M. Gould, Philadelphia.

Discussion, D. C. M. Ferrin, Essex Junction; Dr. H. H. Swift, Pittsford.

Wednesday, June 29th.

morning session, 9.30 o'clock.

Paper, "Duties of Health Officers, and How to Execute Them," by George F. B. Willard, M. D., Vergennes.

Discussion, Dr. E. L. Erwin, Newport Town; Dr. E. G. Roberts, Fair Haven.

Paper, "The Practical Working of the Registration Laws," by H. B. Whittier, City Clerk, Rutland.

Discussion, Hon. E. A. Cudworth, Londonderry; T. R. Merrill, City Clerk, Montpelier.

Paper, "The Co-ordinate Functions Funeral Directors and Health Officers," by J. Warren Roberts, Representative of National Funeral Directors' Association.

afternoon session, 2.00 o'clock.

Paper, "Nuisances, What They Are, and How Health Officers and Local Boards of Health Shall Deal with Them," by A. C. Bailey, M. D., Randolph.

Discussion, Dr. C. C. Rublee, Morrisville; Dr. H. H. Lee, Wells River.

Paper, "The Laboratory and Its Relation to Local Boards of Health," by B. H. Stone, Bacteriologist to the State Board of Health.

Discussion, Dr. H. L. Waterman, Brattleboro; Dr. R. J. Goss, Norwich.

evening session.

Address, "Food Inspection and State Control," by Albert E. Leach, Analyst to the Massachusetts State Board.

Discussion, C. P. Moat, Chemist to the Vermont State Board of Health; Dr. W. D. Huntington, Rochester.

Thursday, June 30th.

morning session, 9.30 o'clock.

Paper, "Some of the Problems of Water Supply and Sewage Disposal in Vermont," by X. H. Goodnough, Engineer Massachusetts State Board of Health.

Discussion, Dr. F. E. Clark, Burlington; Dr. J. H. Hamilton, Richford; Dr. E. S. Hutchinson, Enosburgh Falls.

The School of Instruction for Health Officers was established by act of the legislature. All Health Officers of the State are hereby warned and directed to report in person at Burlington for the purpose of attending the School of Instruction for Health Officers, to be held in the Young Men's Christian Association Hall, entrance on College Street, near Church, opening Monday evening, June 27, closing Thursday noon, June 30.

Remember that attendance upon this School is one of the duties of every Health Officer, and will be so treated.

Per order of the

STATE BOARD OF HEALTH,

HENRY D. HOLTON, Sec'y.

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All railroads of the State will give convention rates to all those attending the School.

A register of the School will be open at the office of the Young Men's Christian Association, where hand baggage and overcoats may be checked at any time. Those who wish board in private families will there find a list of boarding houses.

Every member of a local health board should register immediately on arrival.

The Laboratory of Hygiene, 196 Main street, will as usual be open at all times to visiting health officials, and all are expected to make free use of the Laboratory rooms.

The School sessions are open to the people of Vermont, and all are invited to participate in the discussions as far as the time will permit. Health officers are expected to utilize the opportunity to get information on any points of practical importance in their work, and all will study brevity in their remarks and questions.

SPECIAL THERAPEUTIC ARTICLES.

IRREGULAR MENSTRUATION AND TREATMENT.*

E. C. Willey, M. D., Louisville, Ky.

Practitioners of medicine are consulted by no class of patients who display greater solicitude than those who have amenorrhea.

In the popular mind failure of the menses to appear is supposed to be due either to pregnancy or tuberculosis, and either may cause a degree of anxiety that is truly intense.

The term amenorrhea is used to mean the total absence of the menstrual discharge, or a marked deficiency in the quantity of the flow. Amenorrhea may be physiological or pathological. During pregnancy the absence of the menstrual discharge is, of course, physiological and demands no consideration in this article. When pathological, the causes of amenorrhea may be said in general to be due to the following:

(1) Taking cold, at or near the menstrual epoch. (2) Severe mental perturbation, as fright, sorrow, or great elation of spirit. (3) It may be symptomatic in several affections, as tuberculosis, anaemia, chlorosis, syphilis, typhoid fever, nephritis, pelvic peritonitis, and other morbid conditions. (4) Obesity. (5) Luxurious life, or overtaxing the nervous system. (6) Stenosis or atresia of the cervical canal, or imperfect development of the tubes, ovaries or uterus. (7) Vicarious menstruation may make the condition obscure, there being a discharge at the regular monthly periods from the nose, lungs, bladder, stomach, nipple, or other part.

The treatment of amenorrhea must comprehend attention to general considerations, and special indications must be remembered in the various expressions of amenorhea.

The treatment must, in a word, comprehend remedies and measures which are indicated by the etiological factors present in every case which comes up for treatment. When the amenorrhea is caused by having contracted cold, the patient should have a warm sitz bath, and hot applications should be applied to the abdomen and thighs. Often a hot vaginal injection will serve a most useful purpose, and

* ["The Southern Practitioner," July, 1902.]

a laxative, preferably a saline, will greatly aid in bringing on the flow.

In amenorrhea, delayed menstruation and dysmenorrhea, Ergoapiol (Smith) has acted in my hands in a most satisfactory manner. In scanty menstruation, I found it particularly valuable, and I shall enter in detail about one of a series of cases of this character, later on in this article, where this agent brought on a full menstruation and the general health of the patient began to improve at once. When mental perturbation is a factor in these cases it is manifestly the duty of the physician to have the environments of the patient made as quiet as possible, and anti-spasmodic or nerve sedatives should be added to the treatment.

When amenorrhea is associated with syphilis, the uric acid diathesis or morbid condition must receive correct treatment. My experience with Ergoapiol (Smith) is such that I regard it as an indispensable remedy in all expressions of amenorrhea along with proper remedies for any diseased condition associated in the causation of the affection. Of course those cases where the amenorrhea is due to atresia of the cervical canal, and to any other condition which is remedial only by surgical means, drugs will prove of no avail. The same can be said of instances in the amenorrhea due to a rudimentary state of the female organs of reproduction.

A lady some time ago brought her daughter to my office for treatment of amenorrhea. The girl was 18 years old and was visibly anaemic. She had an indifferent appetite and was more or less dispirited. She had enough menstrual flow each month to stain the napkin, but this was all that could be said. I had this patient take Ergoapiol (Smith), one capsule after each meal, and on going to bed regularly for a month. At the next menstrual period the discharge was without pain and free, and the quantity and color was as natural as she had ever known her menstruation to be. She took Ergoapiol (Smith) in the same way another month, and then ceased to have any further trouble. Her color is good and her appetite is likewise excellent; she is full of spirit, and, in a word, well.

A lady aged 33 had scanty menstruation which had covered the period of a year. At no time in the year had her menstrual period been longer than eighteen hours, but generally twelve hours told the tale. Her menses were not only scanty, but the color of the menstrual blood was pale, and this was attended with a disagreeable odor. This woman had no associated disease that most searching examination could bring out. Still she had steadily increased in flesh for the last two years, and to this I attributed the amenorrhea.

I had this patient take systematic exercise and a dietary that was rational, and to take Ergoapiol (Smith) with regularity, a capsule four times a day. After two months this woman ceased to take the remedy, her menstruation having become normal.

A girl 20 years old was sent to me by the matron of a boarding school. She enjoyed good health prior to entering the school, but for the past three months she had not menstruated, and was suffering constantly with vertigo and had attacks of hysteria. I attributed the amenorrhea to change of conditions of life—that of an open life on a farm to that of a shut-in inactive life. Ergoapiol (Smith) was given after each meal for two weeks prior to the day of her usual menstruation. This brought her menses on fully. She has since had no further trouble in this way.

Mrs. A. P. L., aged 35. This lady suffered with frequent attacks of headache, had backaches nearly all the time, and suffered greatly with vertigo. She was the mother of three children, the youngest being 6 years old. For the past four years she had constantly had

scanty menstruation and the blood was very pale. She rarely had the menstrual flow to continue longer than fifteen hours. I was satisfied that the vertigo and all her distress was due to insufficient menstrual flow, and I accordingly put her on Ergoapiol (Smith). She took it through the month, one capsule after each meal; but for a week before the expected period she took two capsules instead of one. She was greatly pleased this time to have a full and free menstruation. Acting on my advice, she took the capsules three times daily for two months, and this acted in a happy manner and she has now passed an entire year and has not failed to menstruate freely.

My diagnosis was fully confirmed by this woman's health being good in every way since the establishment of menses on a basis of health.

NEWS, NOTES AND ANNOUNCEMENTS.

Stye.—According to an abstract in the *Medical Record,* the lash should be removed from the center of the inflammatory area. The swelling should be carefully touched with tincture of iodine or pure carbolic acid. When pus is present it should be released by a small incision. The pain will be relieved by warm fomentations. A weak mercurial ointment will generally cause the disappearance of the remaining thickening of tissue. The diet should be regulated when there is any constitutional disturbance.—*Journal of the American Medical Association.*

Burlington and Chittenden County Clinical Society.—The regular meeting will be held at 162 College street, third floor, Thursday, May 26, 1904, at 8.30 p. m. Programme, "The Doctor from the Lawyer's Point of View,"

Hon. W. L. Burnap.

A general discussion will follow the paper.

Carbon Bisulphide in Sciatica.—This substance applied to the skin over the painful areas produces the sensation of intense cold followed by a feeling of intense heat. The pain only lasts a few moments. It has also been successfully employed in abscess, neuralgia, acute inflammatory conditions, and acute rheumatism.—*G. G. Corbet* (*Maritime Medical News.*)

Local Anaesthesia.—A valuable local anaesthetic for inflamed tissues can be had by adding a few drops of 1 to 1000 solution of adrenalin to ½ to 1 per cent. solution of cocaine. In injecting this the first result is an anæmia of the skin, due to its action on the vaso-constrictors, followed by a deep anaesthesia. Incisions can be made into inflamed tissues with the loss of very little blood, and the method is well adapted for furuncles, anthrax, etc.—*Medical Record.*

It is necessary every so often to "flush out th sewers" in order to remove dirt and filth accumulations, and this is certainly demanded following a hard, cold winter. The tissues become loaded with retained katabolic products, elimination is sluggish, the phagocytes fight against heavy odds, and their "power for good" decreases.

For these conditions, force the elimination by giving Saline Laxative or Salithia, to "clean out" and flush bowels and kidneys; prevent decomposition and re-absorption of poisonous material by administering W-A Intestinal Antiseptic; eliminate with Calcalith, tone up with Sanguiferrin. Your cases will recover rapidly.

For sample and literature, address The Abbott Alkaloidal Co., Ravenswood Station, Chicago, Ill.

The Vermont Medical Monthly.

A JOURNAL OF REVIEW, REFORM AND PROGRESS IN THE MEDICAL SCIENCES.

H. EDWIN LEWIS, M. D., *Editor.*

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Burlington, Vt., May 25, 1904.

EDITORIAL.

THE CURABILITY OF TUBERCULOSIS.

It is to be regretted that so much stress is being laid in modern medical literature on the curability of consumption. The belief is becoming fixed in the minds of all classes that tuberculosis has at last been conquered, and that medical science can arrest the disease irrespective of type or duration. The error of this is all too apparent to those who have given any special thought or attention to the disease. Secure in the happy belief that consumption is easily cured, we may expect the people to get careless, vigilance in regard to prophylaxis will become lax, and the disease will fail to appear in its true sinister light.

Consumption in the stage in which it is usually recognized, is not curable and it never will be. Occasional cases of advanced tuberculosis do get better, but practically all die. This is as certain as anything known to medicine and in itself suggests the paramount necessity of early diagnosis. Taken early, tuberculosis can be arrested in a large majority of all cases, but early does not mean the stage when the diagnosis can be made by everybody.

The great stumbling block to the sanitarium movement to-day is that the great majority of cases that present themselves for treatment are too far advanced to offer any hope of benefit, much less of cure. The medical profession are largely to blame, for they certainly fail to diagnosticate tuberculosis ten times out of one hundred before the disease reaches the second stage. Every sanitarium for tuberculous patients, on account of this fact, is obliged to take a large number of cases that are not suitable. The people can hardly be censured for this, for they naturally look to their medical advisor for instruction in these matters. If the doctor with his training, knowledge and skill does not recognize tuberculosis in its curable stage, can we expect more of the people? It is true, however, that the suspicions of people are aroused many times in regard to the condition of their lungs, and too often they are reassured and reassured by their medical attendant that their fears are groundless. Then some day they have a hemorrhage or their disease assumes an acute type and too late they learn the truth for themselves. Is there any excuse for the doctor? None, for he ought to know his business and duty well enough to either recognize or suspect the true condition and act accordingly. And if he does recognize the true condition and fails to tell his patient the truth, his crime is ten times worse than that of ignorance.

If any one cause can be blamed more than another for failure to recognize tuberculosis in its curable stage it is that the medical profession rely too much on the analysis of the sputum. To wait until tubercle bacilli can be demonstrated in the sputum is to wait until too late in 75 per cent. of all cases! If medical men will train themselves to diagnosticate the disease from the physical signs and general

symptoms, they will be able to reduce the mortality from tuberculosis to a wonderful degree. Even if they cannot diagnosticate the disease, treatment on suspicion will accomplish much, and should be the rule. But if we wait until the bacteriologist is ready to declare that the disease is tuberculosis, we will never accomplish much in overcoming the disease.

Therefore we should not say that consumption or tuberculosis is a curable disease, but that it has a curable stage, and in every way we should train ourselves to recognize that stage and teach our patients to suspect it, keeping always this fact before us: better by far to treat one hundred for the disease when they have not got it, for they will stay well, than to fail to recognize and treat one case that has got it, for he will die.

EDITORIAL NOTES AND CLIPPINGS.

Antitetanic Serum.—It has been shown that guinea-pigs, and other animals inoculated with the poison of tetanus, survive when treated at once with Antitetanic Serum. In France, Nocard observed 375 animals of various kinds, all of which had been wounded, accidentally or surgically, and subjected to tetanic infection. These animals were given Antitetanic Serum at once, before the disease had time to develop. As a result, not a single case of tetanus occurred among them. On the other hand, he noted 55 traumatized animals that had been exposed to tetanic infection, every one of which developed the disease.

In the August, 1899, number of *Medicine,* Prof. Geo. F. Butler, M. D., says: "Dr. Joseph Hughes, one of the most eminent and conservative veterinary surgeons in Chicago, has used the serum as a prophylactic in over 500 cases following wounds, both surgical and accidental." Not a single case of tetanus has developed, though Dr. Hughes has used the serum where by former experience he was justified in expecting the disease to manifest itself.

From this and similar reports it has been proposed to immediately inject antitetanic serum in every case of traumatism of a suspicious character, hoping in this manner to prevent the subsequent development of tetanus. The serum is harmless to man and may be given hypodermatically as the other serums. Nocard recommends that a first injection of ten cubic centimeters should be made as soon as possible after traumatism. A second injection should follow in from twelve to fifteen days.

It has been suggested to inject prophylactically all new-born infants in certain sections of Europe in which trismus neonatorum prevails.

In the *Therapeutic Gazette* for February 15, 1903, the editor directs attention to the fact that "although tetanus is, comparatively speaking, a rare disease, it is sufficiently frequent and fatal to make an antitetanic serum a much sought for remedy." He also pointed out the fact that the failure of antitetanic serum depended "not upon the fact that it was possessed of no virtue, but rather because it was used too late to combat the disease." The same writer expresses the view that, "one fact stands out above all others, and that is, that thoroughly good results cannot be expected from antitetanic serum unless it be given in the very earliest stages of the infection. So true is this that experienced observers have insisted that its best results can be obtained only when it is administered immediately after exposure to infection, without waiting until the micro-organisms have had a chance to develop in the body and produce early symptoms of poisoning.

The editor of the *New York Medical Jour-*

nal, in the issue of March 26, 1904, remarks that "the present drift of opinion seems to be to the effect that tetanus antitoxin while probably of considerable prophylactic efficacy is of little use as a curative agent.

At a meeting of the Paris Society of Surgery, according to the same editorial, M. Labbe expressed the view, that since the injection of antitetanic serum has been employed as a routine prophylactic measure, the disappearance of tetanus after surgical operations in horses was a prime fact in support of its preventive efficiency.

Furthermore, recent experience in the immediate topical employment of antitoxin in cases of toy-pistol injuries appears to support our trust in its prophylactic value.

Bazy (Bulletins et Memoires de la Societe de Chirurgie de Paris, 1896, N. S., XXII, 186, 191), had four cases of tetanus develop in his wards. From that period he applied preventive treatment to all cases of wounds admitted to his service. He made 21 preventive inoculations of 10 cubic centimeters each. None of these patients developed tetanus, although he says their wounds belonged to that category which includes most cases of the disease.

Dr. Joseph McFarland, in the *Journal of the American Medical Association* for July 4, 1903, reports the results of a series of observations upon 800 horses which illustrate the value of antitetanic serum as a prophylactic agent. During a period of four years there had been a death-rate of 10 per cent. from tetanus, in spite of all precautions. A systematic immunization with antitetanic serum was then begun. Injections of 10 to 25 Cc. of serum were given every three months. As a result the death rate from tetanus rapidly decreased, and in the second year had been reduced to less than 1 per cent. The author believes that the practical conclusions to be drawn from these observations may be applied to the human subject. He thinks that antitetanic serum should be given as a prophylactic measure in all cases of suspicious wounds that are likely to be followed by tetanus.

Experiments made on guinea-pigs by the author demonstrated that the dried serum fully protects inoculated animals.

At the 29th annual meeting of the Mississippi Valley Medical Association, held at Memphis, Tenn., October 7, 8 and 9, 1903, Dr. S. C. Stanton of Chicago, contributed a valuable statistical paper on "The Prophylaxis of Tetanus," (the *Medical News,* October 31, 1903, page 860). Among the various prophylactic measures recommended by the author were the open treatment of all wounds, however insignificant in which from the nature or surroundings there was any risk of tetanus; the immediate use of antitetanic serum in all cases of Fourth of July wounds, wounds received in barnyards, gardens, or other places where the tetanus bacillus was likely to be present, or tetanus infection to occur.

MEDICAL ABSTRACTS.

Morphine Habit.—The writer uses mandragorin in the treatment of morphinism, giving 5 drops of a specially prepared solution hypodermically with ⅛ grain of pilocarpine, repeating this dose every two hours. If the symptoms of abstinence manifest themselves, the dose may be increased until comfort ensues, even if 15 or sometimes 20 drops of the solution are taken. At the end of forty-eight hours the antidotal and eliminative effect of the remedies is usually complete. A dose of ⅛ or ¼ grain of morphine will then produce the same effect as it would before the morphine addiction. For heart-weakness strych-

nine nitrate and sparteine should be given hypodermically for three or four days afterward, and thorough eliminative measures should precede the dosing.—W. S. Birge (*Boston Medical and Surgical Journal,* April 14, 1904).

Diet in Diabetes.—Suitable diet is considered as important a factor in the treatment of diabetes as is the administration of drugs. The fact has been for some time recognized by the medical profession that abstinence from all articles of food which may be converted into glucose causes a marked decrease in the quantity of glucose in a diabetic patient's urine, and in every respect tends to an improvement in the condition of the majority of those afflicted with diabetes.

Sir James Sawyer of Birmingham, in the *British Medical Journal,* March 5th, points out that until the researches of Mosse two years ago, it was the therapeutic rule to withhold potatoes in saccharine diabetes. Mosse's researches led him to conclude that potatoes, far from being harmful, form a useful and beneficial food in glycosuria, and that they are capable of being substituted for ordinary wheaten bread in daily proportions sufficient to maintain the alimentary ratio—that is to say, in the proportion of two and one-half to three of potatoes for one of bread. Mosse found that a daily ingestion of potatoes in quantities of from 1000 to 1500 grammes caused, roughly, from 2 pounds to 3 pounds avoirdupois diminution of the glycosuria, quick relief of thirst, and general improvement in the patient. The reason for this beneficial action of potatoes in the feeding of diabetic persons is, according to Mosse, because the salts contained in potatoes are chiefly those of potash, and potash exerts a retarding influence on the progress of diabetes.

Sir James Sawyer states that his own experience in practice during the past two years is confirmatory of Mosse's conclusions, and he goes on to declare that in his opinion the beneficial results of Mosse's discovery and teaching as to the use of potatoes as a food in diabetes might well be carried much further in the dietetics of diabetes than merely to the extent of the free allowance of properly cooked potatoes. The writer proposes that the therapeutic difficulty as to the prohibition of ordinary bread for a diabetic may be met advantageously by making bread, cakes, and biscuits for diabetes by using the "flour" of properly cooked potatoes instead of the flour of grain. Sawyer's dietary for diabetics is as follows: May eat butcher's meat of all kinds, excepting liver, pork, ham, bacon, poultry, and game, or potatoes steamed in their "skins." Fish, oysters, crabs, lobsters, animal soups (not thickened excepting by potatoes), mutton-broth, and beef-tea. Bran and potato bread or biscuits, potato cakes, eggs, cream, butter, cheese, greens, water cress, mustard and cress, lettuce, mushrooms, nuts, and jelly or custard (unsweetened).

May not eat any bread or biscuits but those made of bran and potato, sugar, asparagus, broccoli, cauliflower, carrots, parsnips, French beans, peas, turnips, arrowroot, macaroni, rice, sago, tapioca, vermicelli, pastry, excepting potato cakes, puddings, and fruit (fresh and preserved).

May drink water, tea, coffee, soda-water, claret, hock, spirits and water, unsweetened; bitter ale, very sparingly; milk, very sparingly.

May not drink cocoa, chocolate, champagne, porter, stout, home-made wines, liquors, cider, sweet wines, and ale.

At one time the diabetic was greatly restricted in diet, but, owing to the new views, promulgated first by Mosse, the sufferer from the disease has a wide choice of food and need

no longer live a life of rigid self-denial. This more generous *regime* of living is to his physical advantage.—Editorial (*Medical Record*, April 2, 1904).

WHAT IS THE BEST ANESTHETIC FOR CHILDREN?—Bennett in the *Archives of Pediatrics* for April, 1904, has something to say on this subject. Of chloroform he states that there is a firmly fixed and widespread belief that this is the best anesthetic for children, and the belief is carried to the point of supposing that this agent is less dangerous in them than in adults, or that they possess a special immunity from its dangerous action not enjoyed by older individuals.

This is a grave error, without foundation, and is responsible for the common and dangerous practice of choosing chloroform for children simply because they are children. The writer believes that chloroform is a particularly dangerous anesthetic for children; and this conclusion is based upon the personal observation of many cases of more or less alarming depression of the circulation and respiration during the careful administration of this anesthetic. The induction of anesthesia in children must often be accomplished during crying and struggling, and the great irregularity of the respiration under these circumstances makes it difficult to administer chloroform in the gradual, smooth manner which is to necessary for safety. Sudden overdosage is exceedingly common at this time; the administrator, anxious to quiet the child, is tempted to add the chloroform faster than he would if the patient were quiet, and thus the intake of anesthetic is increased at an alarming rate. If the dropping of the chloroform on the inhaler is doubled and the respiration exaggerated by crying and struggling to three times the quiet respiration, the patient will receive about six times as much chloroform as he should. This is not an overestimate of what often occurs, and it explains that familiar picture of a child struggling under chloroform, suddenly becoming quiet, pale, and deathlike, with failing pulse and respiration. It is a case of either overdosage or too rapid dosage; either the amount administered has been too great, or an amount which would seem reasonable has been taken in too rapidly.

It is necessary, therefore, to proceed with great caution, and to add chloroform at a slower rate during crying, struggling, and exaggerated respiration than during normal breathing. Children generally become quiet quite suddenly during the induction of chloroform anesthesia, and it is a wise plan to suspend the administration for a moment when this occurs and note the effect of the dose which has already been taken in. It will often be observed that a marked and prolonged effect follows the initial dose, and this demonstrates the wisdom of the pause in the administration, as otherwise an unnecessary and perhaps dangerous amount may be given. When it is seen that the initial dose has not been excessive, the administration may be resumed, and as the respiration is now more regular the narcosis progresses with much greater safety.

The most important principles of chloroform administration are the avoidance of a concentrated vapor and an even use of the smallest amount of the anesthetic compatible with satisfactory anesthesia.

While chloroform is not to be recommended as a routine anesthetic for children, ether being preferable as a rule, there are certain conditions which reverse this order. In the presence of acute bronchitis, pneumonia, nephritis, and marked respiratory obstruction, chloro-

form is usually to be preferred to ether, as the latter aggravates these conditions to a much greater degree than chloroform. Diluted chloroform, as in the A. C. E. and similar mixtures, is safer than pure chloroform, as it yields a more dilute vapor. The mixtures should be administered in the same manner as pure chloroform, drop by drop.

There is a very general belief that ether is an unsuitable anesthetic for children. They are said to take it badly and to be greatly irritated by it, so that the respiration is interfered with by choking, coughing, and by an excessive flow of mucus. These unpleasant effects are due chiefly to faulty administration, and the fault is in using too much ether and forcing it upon the patient too rapidly. Whatever form of inhaler is employed, the ether should be presented very greatly diluted at first, and it should be increased so gradually as to avoid these effects as completely as possible. In this way ether may be given to children with great satisfaction, particularly if preceded by nitrous oxide, and a transition gradually made from that anesthetic to ether. Nitrous oxide should be used with great caution and sparingly in infants even in this way before ether, and in all children air should be given at an early period.

There is no question whatever of the great safety of ether, and it should be chosen as the routine anesthetic for children except in the conditions above named as rendering chloroform preferable. Such circulatory depression as is commonly caused by chloroform practically never results from ether; on the contrary, the circulation is almost invariably markedly stimulated.—*The Therapeutic Gazette.*

STRAY THOUGHTS.

"It is not to taste sweet things," says Carlyle, "but to do noble and true things, and vindicate himself under God's heaven, as a God-made man, that the poorest son of Adam dimly longs." This dim longing for what is noble and true, the still small voice which calls to one imperatively in moments of temptation, is the safeguard which, if hearkened to, not only protects one in severe trials of manliness or womanliness, but also incites to the formation of a fine character, without which all acquisitions, all graces and accomplishments, all talents and all learning are but as "sounding brass and a tinkling cymbal."

In a well-thumbed autograph book of Abraham Lincoln's, found by H. A. Barker, the following paragraph is underlined and re-underlined: "A wisely trained character never stops to ask, 'What will society think of me if I do this thing, or if I leave it undone?' The question by which it tests the quality of an action is whether or not it is just and wise and fitting when judged by the eternal laws of right." Does not this favorite passage of the boy foreshadow the greatness of the man who, amid the strife of party, the horrors of civil war, the defection of friends, and the abuse and calumny of enemies, stood unflinchingly by the "eternal laws of right?"—*From Success.*

Put Yourself into Your Work.—If you would have your work count for something, put yourself into it; put character, originality, individuality into everything you do. Don't be satisfied to be an automaton. Determine that whatever you do in life shall be a part of yourself, and that it shall be stamped with superiority. Remember that everything you do of real value must have the impress of yourself upon it, and let that be the evidence of excellence and superiority.

You will find that devotion to your work will pay. Superiority of method, progressiveness, and up-to-dateness, leavened with your own individuality, are permanent.—*Success.*

BOOK REVIEWS.

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This very desirable result cannot be accomplished by any other means. Rapid interruptions of a current of compressed vapor or air can, of course, be produced by a rotary device revolving very rapidly. But in such a device there is of necessity a comparatively gradual

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opening and closing of the ports as they are revolved, and it is therefore impossible to get the positive, sharply defined impulses that are produced by the instantaneous stroke of the Vibrator on the Massage Valve of the Multinebulizer, and the equally instantaneous closure of the valve by the action of its coil-spring.

MIDDLE-EAR INFLATION.

We have observed one unexpected, but very desirable result from the use of the Vibrator in connection with the Globe Massage Valve. In several instances when the Eustachian tubes could only be opened by using the catheter, and with difficulty even then, perfect inflation and massage have been secured by manipulating the Massage Valve with the Vibrator, using an ordinary nasal tip only, as illustrated in Fig. 1.

FIG. 1.

The tip is pressed in one nostril while the other nostril is closed, and the checks puffed out while the impulses are given. The rapid vibratory movements of the drumhead and ossicles, combined with inflation by means of medicated vapor, produce in such cases a beneficial result, the value of which cannot be overestimated. From the careful tests already made, it is very evident that the possibilities of this method of treatment in chronic middle-ear cases far surpass anything hitherto discovered in this line, and that a great many cases that have been considered hopeless may yet receive help. Results in cases of tinnitus have been surprisingly prompt and satisfactory.

SUPERFICIAL MECHANICAL VIBRATION.

While the Globe Vibrator is of inestimable value for the purpose of manipulating the Massage Valve of the Globe Multinebulizer as described, it is by no means limited to this use alone. For direct mechanical vibration the Globe Vibrator is an unqualified success.

VIBRATION A FUNDAMENTAL PRINCIPLE.

The principle of vibration has its basis in the operation of all the natural forces with which we are familiar. Heat, light, sound, electricity, etc., are vibratory in character, and it is reasonable to conclude that the direct application of rapid mechanical vibrations acts as a natural stimulation to the tissue cells when their normal activity is impaired. This is particularly true of the more superficial tissues, especially of the skin. Hence, the great popularity of compressed air vibration for facial massage. For this purpose the Globe Vibrator possesses numerous advantages over all other appliances now in use.

LOW PRESSURE.

The Globe Vibrator works perfectly with an air pressure of les than five pounds, producing rapid but gentle vibrations that may be applied directly to the ear-drum through the external auditory canal by means of the hard-rubber aural tip. This is by far the most effectual and satisfactory manner in which to apply direct vibrations in middle-ear cases. In conjunction with the internal vapor vibrations with the Globe Multinebulizer and Vibrator as previously described, there is afforded the most effectual means for combating nearly all chronic middle-ear affections. Marked relief and benefit will result in a large percentage of

cases that cannot be relieved by any other measures.

MUSCULAR AND VISCERAL VIBRATIONS.

By using a higher air pressure heavier vibrations are produced suitable for application to any part of the body.

SMALL QUANTITY OF AIR REQUIRED.

The Globe Vibrator is so constructed that it requires only a very small quantity of air to operate it, the quantity consumed being greatly out of proportion to the force and frequency of the vibrations as compared with other compressed air vibrators now in use.

THE PAIN IN RHEUMATIC GOUT.

Chas. P. Heil, M. D., late Professor of Anatomy, Indiana College of Medicine, Indianapolis, Ind., in the *Mobile Medical and Surgical Journal,* states: "Many of the cases of rheumatic gout which I have treated were of an obstinate and complicated character and I must state that I myself have been suffering with an attack in the nature of a very severe inflammatory condition, situated in and over the articulations of my wrist, knee and ankle joints. The pain which I suffered most of the time was indescribable. I placed myself under the care of a physician, who, upon examination, pronounced me also slightly affected with cardiac trouble. I suffered the most excruciating pain for ten days and nights, without alleviation of my sufferings, nor apparent signs of progress for the better. Knowing full well the efficiency and value of Antikamnia Tablets in these cases, I took two tablets and about ten minutes after taking them the pain was relieved, I perspired slightly and then fell into a gentle sleep. The result was simply magical. I slept eight hours in perfect rest, free from all pain. I continued the two tablets every four hours during my convalescence and until complete recovery."

ENTEROCLYSIS.

By Sol. Newmayer, M. D., Philadelphia, Pa.

Among the varied causes of convulsions none play a more frequent and important part than auto-intoxication. They are more frequent in children, due generally to a possible over-feeding, improper food or constipation. The intestinal canal contains a variety of toxins, derived from the ingesta, bile, and putrid material. There is continuous absorption from the intestines, including the taking up of toxines.

In the acute infections, where convulsions are ofttimes a forerunner auto-intoxication from the intestinal tract undoubtedly is of no minor importance. Infections are the result of microbes and we know these bacteria produce something injurious to the system,—they elaborate poisonous ptomaines or toxic substances. Nature tries to rid the body of this poison, through its various channels of elimination, one of which is the intestinal canal.

It is here we can aid nature with our antiseptics. The value of internal intestinal antiseptics I believe is greatly over-rated. Many of these drugs are soluble and absorbable and those that are not are so often given in such small doses in the long journey from the mouth through the intestinal tract, they have spent most of their value before they have proceeded far.

Not to employ internal antiseptics would be unwise, but I would urge a more liberal use of antiseptic solutions by means of the rectal tube. This enteroclysis has not only its antiseptic value, diminishing the toxicity of the intestinal tract, but ofttimes an antipyretic action. This mode of treatment has not been very popular with the physician because of the

unclean work, but I am confident the results will repay one for the labor.

In all cases of convulsions, immaterial of the cause and in any other conditions pointing to aauto-intoxications, I flush the lower bowel with a solution of Glyco-Thymoline one to two ounces to the quart of water.

Glyco-Thymoline is always kept in my emergency grip.

There is still some difference of opinion among physicians as to whether the preparations of the active principles of cod liver oil fully replace the administration of the oil itself. There can, however, be no difference of opinion as to the superiority of these preparations during certain periods of the year. During the summer months especially we have found them of great use, for there is a marked loathness on the part of patients to take emulsion or preparations having an oily nature. Among these preparations we have found Hagee's Cordial of Cod Liver Oil one of the most satisfactory. It is exceedingly palatable, can be taken by those with the most delicate digestion, without any disturbance of the same, and its effects are rapidly observed.—*Colorado Medical Journal.*

A UNIQUE ACCIDENT.*

By Alex. Rixa, M. D., New York City.

H. C., about 40 years of age, weighing about 200 pounds, came home late in the night in a "festive condition." Inserting his key in the door lock, his foot slipped and he fell with his face, respectively his mouth, on the edge of the key, severing the tissues below the lower gum and the sublingual gland.

When I arrived at the house he was vomiting profusely. However, when the vomiting ceased for a while, I noticed blood oozing from behind the lower lip, intermixed with a yellowish, somewhat frothy liquid pouring out in gushes. I endeavored to stop the flow, but did not succeed owing to the repeated vomiting spells.

At last I succeeded to inject hypodermically a half a grain of morphine, in consequence of which a cessation of vomiting followed shortly.

After a careful examination of the injured parts, I concluded it could be but the sublingual gland which emits the secretions, and was not a little surprised at the enormous quantity, as, to my knowledge, this gland is very small and weighs only one dram. I intended to put some stitches in the tear, but patient protested against it in his semi-intoxicated condition. I had to resort therefore to the application of strips of adhesive plaster to the surface of the lower lip, thus compressing the severed parts.

As a matter of fact, this procedure stopped the evacuation and I left patient in quite a comfortable condition.

The beneficial action of the morphine, however, was of short duration, as I was summoned again about two hours after, with the frightened remark that patient is suffocating.

When I arrived, I found patient hanging down his head from the bed, gasping for breath, as some food-masses could not pass through the mouth owing to the compressed chin. I tore off the bandage, and with the contents of the stomach the little gland commenced to flow with renewed vigor. By this time, the man having sobered somewhat, after some arguments he permitted me to put in the necessary sutures.

Notwithstanding the internal administration of some stomachia the irritation continued, vomiting would not cease. I was compelled to inject hypodermically another dose of

*Reprint from *The Medical Summary*, Jan. 1904.

morphine, which after some minutes stopped that wretched retching.

The next day, however, as the effect of the morphine passed away, vomiting recurred.

Considering the fact that a simple alcoholic irritation of the stomach would yield to the prescribed treatment, I concluded that it could be but the swallowed secretions of the sublingual gland which caused this persistent irritation.

First, I considered a washing of the stomach, but, as previously, I met with the opposition of patient.

As a matter of course, there was only an internal medication left for consideration. I decided therefore, on a simple innocuous antiseptic—glycozone—with which I had quite a satisfactory experience in several cases of ptomaine poisoning. I prescribed it in repeated tablespoonful doses with rapid and gratifying results.

Notwithstanding the liberal use of antiseptic washes and sprays, the wound in the mouth was healing but very slowly.

75 E. 107th St.

AFTER PAINS.

For the treatment of after-pains Hayden's Viburnum Compound is a safe and reliable anodyne and antispasmodic, and its administration renders all other remedies superfluous. Unlike the opiates, it does not produce constipation or gastric disturbances, but promotes perfect comfort without any deleterious action.

THE WORST KIND OF POVERTY.

No other form of poverty can compare with mental destitution. Though a man own neither houses nor lands nor money, yet, if he has a cultivated mind and a broad mental horizon, if the door of his intellect has been opened wide, so that he drinks in beauty and intelligence wherever he goes, and if he has developed his sympathies so that he is in touch with life at all points, he has found the secret of success and happiness.

On the other hand, if a man merely accumulates millions of dollars, though he own broad acres and live in a palace, if his mind has been starved, if he is intellectually poor, he will know nothing of the world beautiful in books, he will see nothing to admire in art, nothing to soothe or elevate in music; if he has been wholly absorbed in crowding and elbowing his way through the world to the total neglect of his higher nature, in spite of his costly surroundings, he is the most despicable and pitiable kind of pauper.

Saving money and starving the mind is the poorest business that any human being can possibly engage in. Wear threadbare clothes, if necessary; sleep in a bare attic, if you must; sacrifice legitimate but unnecessary amusements; do anything in reason rather than starve your mind. Feed that at any cost short of injuring health.

A youth who has learned the alphabet has the key to all power. He can make royal investments, for mental investment is the greatest any one can make. It is a form of wealth that will stand by one when panics or other misfortunes have swept away property, when friends fall away, when the whole world seems to have turned against you. No matter what happens, if you have a rich mind, if your intellect is a storehouse of precious knowledge, you can never in reality be poor.

HOW BEST TO KNOW THE WORLD'S FAIR.

When one decides to take a trip it is best to have a plan, because a plan saves time, money and vexation, and greatly increases one's pleasure. Never was this truer than

when applied to the great World's Fair at St. Louis. By a very simple means and nominal expense one may so prepare himself or herself that when the World's Fair is reached there will be no trouble about finding what one wants to see. The World's Fair is very large, covering two square miles. A row of four exhibit palaces is over a mile long. One palace, Agriculture, covers 23 acres. The Palace of Transportation contains four miles of railway tracks for the exhibit of locomotives and trains. The Palaces of Art cost over $1,000,000. The Festival Hall with the Terrace of States, cascades and gardens cost another million. The great Philippine exhibit covers 40 acres. These are but instances of the $50,000,000 exposition. The entire picture of the exposition, showing the orderly arrangement of buildings and grounds, has been reproduced by a skillful artist so that the stranger may soon become acquainted with the whole. This fine picture, all carefully indexed, and giving a clear and comprehensive idea of the grand exposition, is published by Robert A. Reid, 411 Olive Street, St. Louis. Send 15 two-cent stamps to Mr. Reid and he will mail it to you. Send 30 cents additional if you also want his 64-page World's Fair Album.

"The regulation of the *prima via* is the basic principle of all therapeutics. Build on this as a sure foundation: 'Clean out, clean up, keep clean.'"

Do this and your success in the treatment of every class of cases will be a matter of course. Give calomel, gr. 1-6, podophyllin, gr. 1-6, one granule of each for 4 hourly doses in the evening, followed by Saline Laxative in the morning. This "cleans out." Intestinal Antiseptics will "clean up."

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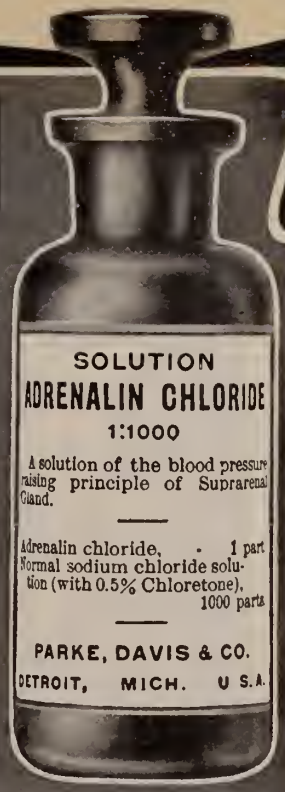

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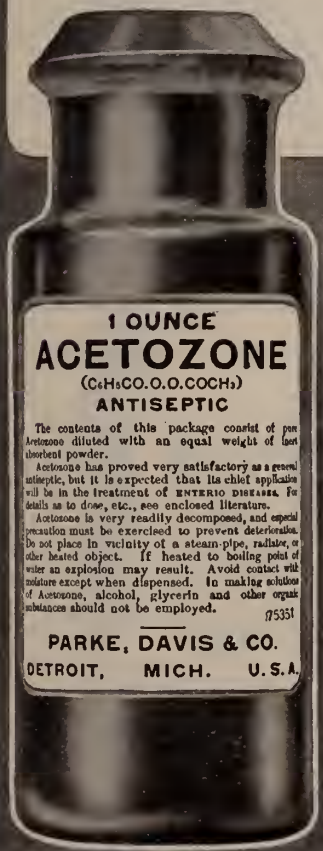

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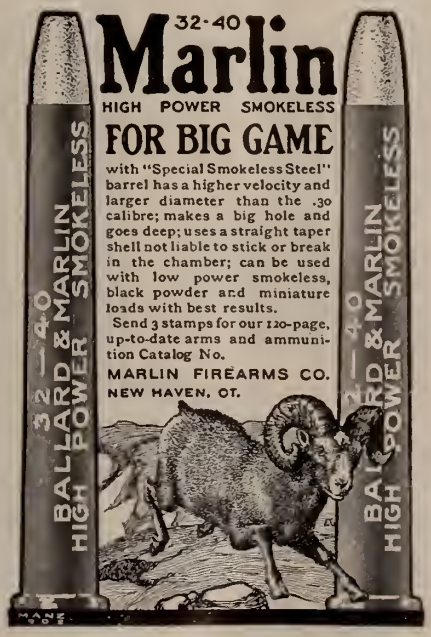

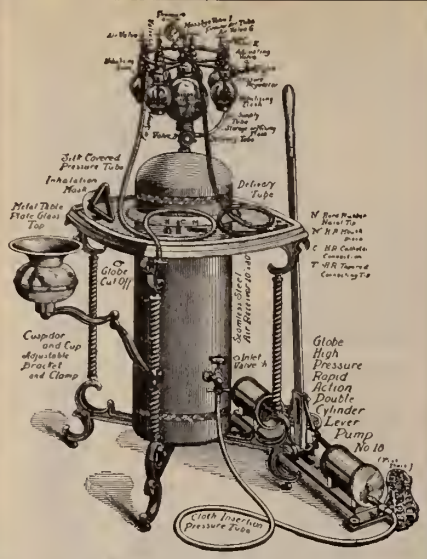

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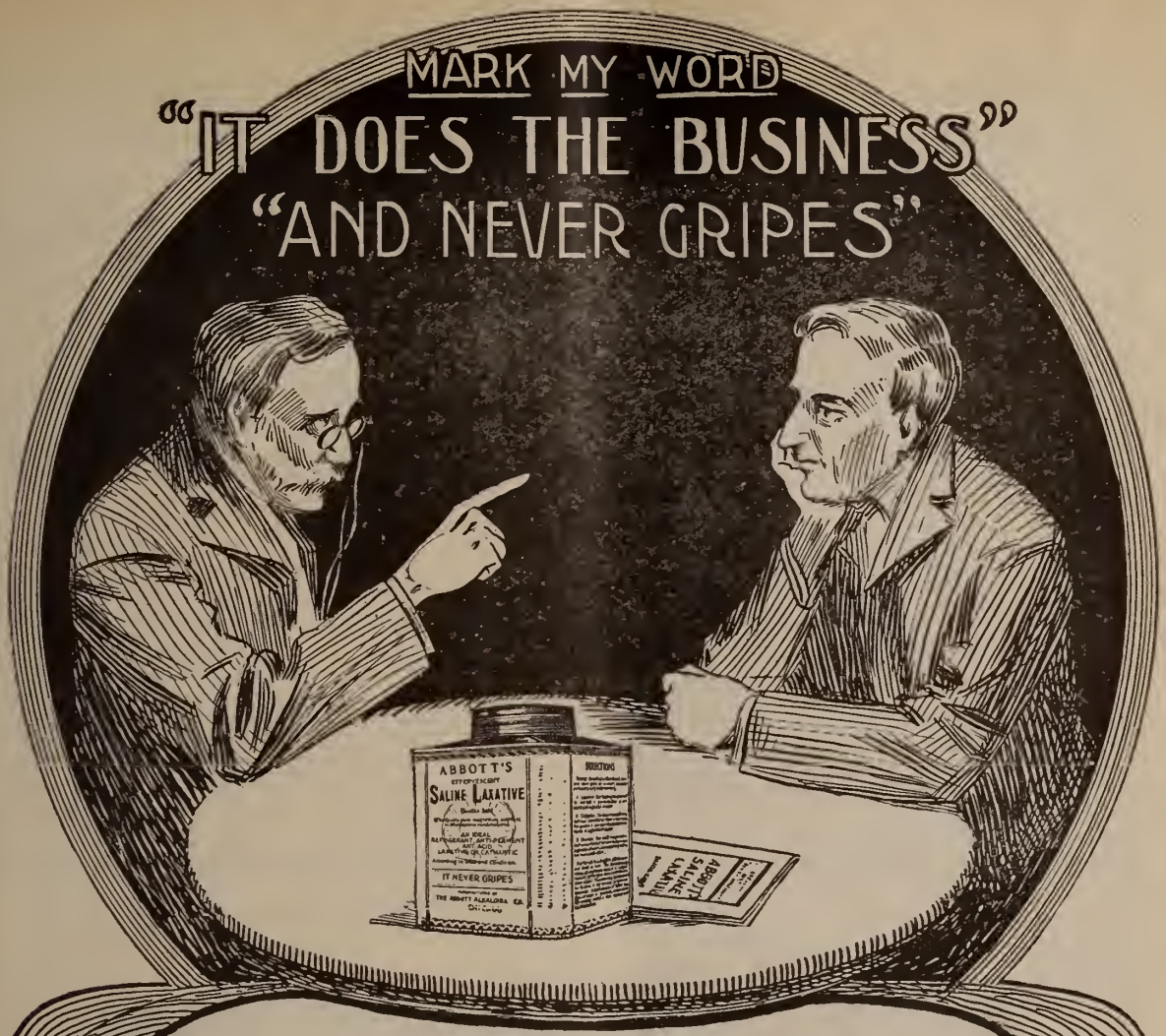

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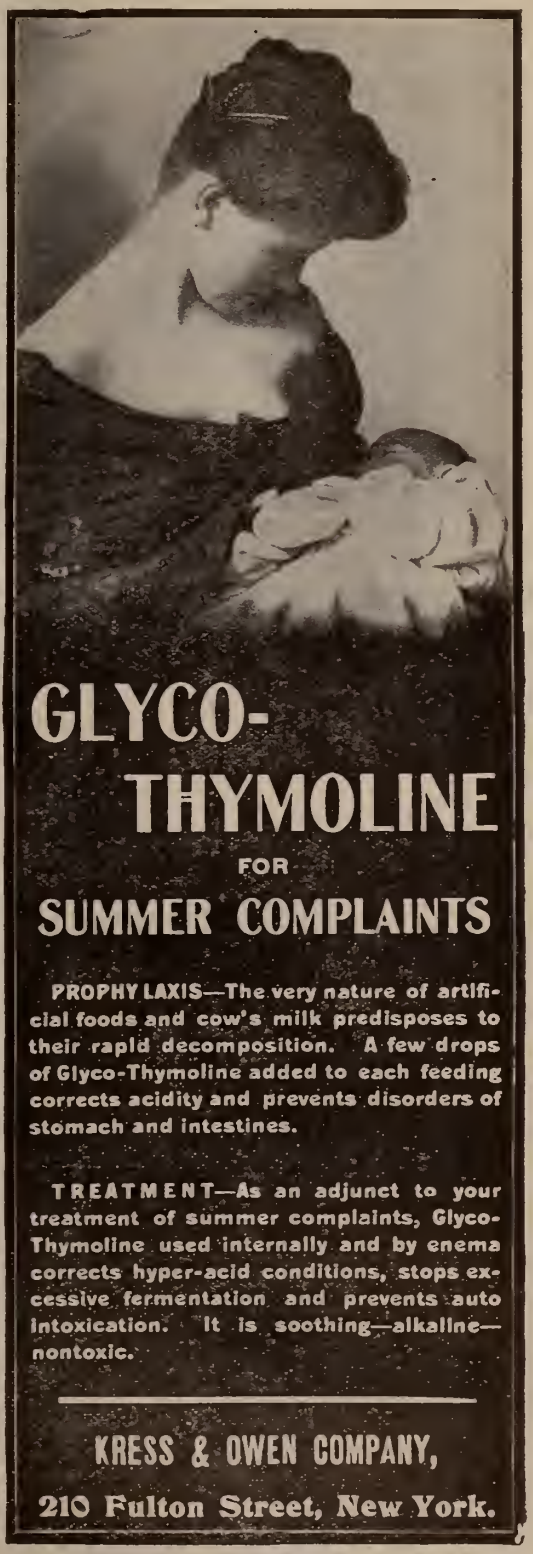

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The Vermont Medical Monthly

Vol. X. June 25, 1904. No. 6.

ORIGINAL ARTICLES.

"TUBAL" GESTATION, WITH VAGINAL ENUCLEATION.

By C. W. Strobell, M. D., Surgeon, Rutland Hospital.

Case H. D., American, Age 23; 4 Para.—One month before admittance was seized with sharp, labor-like pains, in left groin, while engaged with her household duties. This continued for about two hours, when she had a sensation as of something "breaking" in that region. This was followed by a vaginal discharge consisting of purulent bloody material, free from clots or solid debris. Nausea and faintness supervened; pain and other symptoms, continuous, though somewhat modified by assuming the prone position. She was thought, by her medical attendant, to have sustained an acute backward dislocation of the womb. A rather abundant leucorrhœal discharge supervened, free from blood, however, and continued, for the succeeding twenty-four hours, when the menses appeared, to terminate three days later. The pain in the groin continued, without intermission for one month, during which time repeated replacement of the womb failed to give relief. Hot water applications to the groins, and morphine, grs. 2, daily, were the means used to procure relief. During this period (one month) the pain was continuous, but occasionally spasmodic, causing her to frequently "curl up on the floor," as she expressed it, and "nothing did any good." Frequent "cold creeps" and fever were more or less constantly present, together with a free yellowish, malodorous leucorrhœal discharge.

Menstruation, during the past year had appeared every two weeks, and was always quite profuse, but not painful.

One month from the onset of this condition, the patient presented herself at my office.

Although but twenty-three years of age, she had been married, and divorced, had given birth to four children, had undergone ventral section, with removal of the right tube and ovary, suspension of the uterus, after "Kelly"; curettage, and plastic work upon the cervix and perineum.

She presented the usual picture of auto-infection, common to this class of cases—rather pale, underweight, undernourished, debilitated, anaemic; circulation feeble, etc., etc., a "thin subject" all around.

Upon physical examination, the vulva presented gaping widely, showing a complete failure of the perineorrhaphy.

The uterus, freely movable in all directions, was in normal axis, held there by the new suspensory ligament; the fundus against the pubic arch, the cervix in the hollow of the sacrum; but still, notwithstanding this support, prolapsed downward, to the limit, in that direction.

The organ was subinvoluted, hyperplastic; the cervix hard, dilated, admitting tip of phalanx—fundus much enlarged, somewhat boggy, and very painful when subjected to bimanual pressure. The right parametrium was negative. The left uterine appendages were prolapsed, forming a painful mass, in the pouch of Douglass, the size of a small hen's egg.

Treatment.—The following morning, under ether anaesthesia, the uterus was forcibly dilated, and the cavity explored. Depth of cav-

ity 9½ cm.; fungoid like material in left cornua, but not at all resembling decidual debris. Bleeding, very free.

Following the use of the curette, the cavity was flushed out with hot bichlor. sol., then dried out with several strips of iodoform gauze.

A fairly good--sized swab of gauze, wrapped about the blades of dressing forceps, was saturated with pure carbolic acid, (the excess removed) and plunged into the uterine cavity, then most thoroughly rubbed into the walls, for fully ten seconds, immediately following which the cavity was flooded with 95 per cent. alcohol from a loaded glass syringe. This flushing was repeated several times.

After the uterine spasm had subsided, the cervix was again dilated, and a strip of iodoform gauze, two inches wide, and one yard long, was firmly packed into the cavity; another similar strip tied to the end of this, and, so on, these additional strips being also much wider, were packed beneath, and around the cervix in the cul-de-sac, to elevate and support the uterus; promote drainage, and to relieve vascular engorgement, the continuity of the vaginal canal was moderately distended with the rope of gauze and the end left projecting slightly through the vulva.

The anaesthetic was well borne throughout, no nausea following. The patient rested well that and the succeeding nights. Pain having disappeared markedly after the operation, the use of morphia was discontinued. The gauze packing was removed on the second day, and vaginal flushings with bichloride sol. (1-10,000) followed with plain water, were employed thrice daily. There was a very perceptible improvement in her condition from the very first.

One week after the curettage, she was again placed upon the operating table, the uterus was again dilated—but not curetted—swabbed out with pure carbolic acid, flushed repeatedly with 95 per cent. alcohol, and packed. The cervix was next grasped with a double tenaculum and brought well forward under the pubic arch. A semicircular incision from left to right, along the utero-vaginal junction prepared the way for further dissection, with the finger, along the median line, into the peritoneal cavity. This reached, the opening was further enlarged, laterally, by passing both index fingers, paralleled, into the opening, and divulsing, much as in the rapid dilatation of the sphincter ani. Two sponges of gauze, each two inches wide by an inch in thickness, and each fastened to a long strong silk ligature, were passed through the opening into the peritoneal cavity with the object of damming back the intestines, and protecting them from injury. The mass in the cul-de-sac was next systematically freed from adhesions to the left broad ligament, by a lateral to-and-fro movement; the palmar surface of the index, or operating finger, being directed upwards and forwards, and hugging closely, the posterior surfaces of the uterus and left broad ligament. The freed adnexae were then made to present at the opening, by the hooked finger, and the tube grasped by Luer's forceps, and dragged into the vagina, together with the ovary, for examination. Conservatism, as regards the tube, proved to be out of the question, in view of the condition present,—the tube being very greatly enlarged, thickened, and bound down by constricting adhesions, beyond hope of restoring to any degree of usefulness.

The ovary was much enlarged, and studded with good-sized cysts, except at the outer segment, which seemed healthy., A few ecchymotic areas were observed, showing dimly through the thickened tunica-albuginea.

A double ligature was passed through the mass, close to the uterus, and the mass ablated, with the exception of the outer, comparative-

ly healthy, ovarian segment, which was allowed to remain.

The sponges were withdrawn from the peritoneal cavity, the intestines not even having been *seen* during the operation. The blood-loss was slight, and proceeded mainly from the azygos-vaginae artery. This portion of the vaginal canal is exceedingly vascular, and always bleeds freely, after incision. Artery clamps are much in the way, in this kind of work, and should not be applied and left, during the progress of the operation, but, instead, the cut edges of the vaginal wall and the peritoneum, should be whip-stitched by a temporarily placed, continuous suture, which will leave the field almost dry.

Some operators make the incision with the cautery knife, which insures a bloodless field, and minimizes the septic peril. Bleeding from the superior lips of the incision is usually slight, and may be disregarded.

A Pryor-Pean trowel was now introduced through the opening into the pelvic cavity, and the uterus and bladder lifted well up under the pubic arch, while a Jackson retractor against the posterior wall of the vagina, caused the peritoneal aperture to widen, so as to freely admit the dressing forceps, armed with its sponge of gauze, with which the pelvis was dried out, preliminary to closure, which was done by suturing the peritoneal edges together, continuously, with fine silk, and the vaginal wound with stronger, interrupted, stitches of the same material. The perineum was repaired by the "Emmet" method; the anal sphincter divulsed, and the patient removed to the ward in good condition.

The subsequent history, with slight variations, was without special incident, and the patient was permitted to go to her home, two weeks later, feeling "perfectly well," with the exception of the debility naturally remaining.

GROSS PATHOLOGICAL APPEARANCES OF SPECIMEN.

Examination of the fallopian tube showed the walls to be greatly thickened and infiltrated by both old and recent inflammatory exudates, plus the evolutionary changes presumably present. The lumen of the tube was divided into three chambers by constrictions, which resisted the progress of the probe, considerably, yet, notwithstanding this, permitting it to pass entirely through, without resort to violence. The largest chamber approximated the uterus, and contained small blood-clots and decidual debris; also a small quantity of sanious fluid. This cavity was large enough to contain a good-sized hazel nut. The middle chamber was about one-half the dimensions of the former and contained a thin opaque fluid. The outer chamber was formed by the occlusion of the fimbriated extremity of the tube by the ovary.

The ovary was double its normal size, and its "tunic" very much thickened. Many degenerated cysts studded the surface. Its parenchyma contained about a dozen hemorrhagic foci, the largest of which, about two-thirds cm. in diameter, was filled with small black clots; the others were similarly filled, but of varying dimensions. Three corpus luteae presented, the largest of which measured at least one-half inch in transverse diameter, and resembled a "true" corpus in appearance. The remaining two were comparatively small.

This case was undoubtedly one of ectopic gestation, a condition that might have been corroborated by a microscopical examination of the decidual like material, but, unfortunately, this was destroyed. This view seems sound, in view of the previous history, thus,—instead of rupture of the tube wall, as is usual, in the tenth to twelfth weeks, a tubal abortion, into the previously infected uterine cavity,—infective metro-salpingitis, etc., etc.

In conclusion I can but again call attention to the great superiority of the vaginal over the abdominal route, in suitable cases, for conservative or radical work upon the uterus, or adnexae, or both. The technic is slightly more difficult, but the results are finer,—no herniae; no shock; no post-operative intestinal paresis; no pain—comparatively speaking; a speedy convalescence, and no disfigurements, nor abdominal pads.

23½ Merchants Row.

"OLD AND NEW TREATMENT OF SUMMER COMPLAINT."

By Robert M. Sterrett, M. D., New York, N. Y., Former Demonstrator of Surgical Pathology, College Physicians and Surgeons, Chicago; Former Attending Physician, West Side Free Dispensary, Medical Department, Chicago.

In looking over some files of a very popular medical journal recently, I ran across a short article describing a case of summer complaint and setting forth the treatment instituted at that time by the writer of the article.

The treatment advocated by this writer was about the same my preceptor used to give in such condition, twenty-five years ago. And yet we are accustomed to believe there is "progress being made" in medicine.

Here is an abstract from the article mentioned:

"A child of 18 months, bilious and plethoric, with slight otitis, tympanitic, coated tongue, red at the edges, temperature 103 degrees in the morning and 105 degrees in the afternoon; several stools daily of mucus and pus; vomiting and cold perspiration."

Then the writer gave his treatment for such conditions, as follows:

R. "Tincture of aconite twelve drops.
Tincture of Nux Vomica, ten drops.
Paregoric one dram, water to make four ounces.

Direct: A teaspoonful every hour. I also ordered a tablet of calomel gr. 1-5, ipecacuanha gr. 1-10, and sodium bicarbonate, gr. 1, morning and night, until the stools improved and the fever began to relax."

All this for a child a year and a half old. No; there was an alternate treatment of tablets containing "rheubarb, potassium bicarbonate, pancreatin, hydrastis and cinnamon, with half an ounce each of "liquor" and syrup; giving a teaspoonful every *four hours.*"

The italics are mine. That baby could die between the *four hour* doses, brother. And look at the first prescription.

The old uncertain tincture of aconite—no one knows its exact strength at any given time, yet some of us will continue to risk the babies on such perilously uncertain medication. Then the tincture of nux vomica. It is, if possible, even more uncertain than the galenic preparation of aconite; containing from about twelve (the pharmacopoea requires fifteen) percent. of alkaloids down to even one—or less. Yet, in the modern light of definite therapeutics (active-principle) these old tinctures are "good enough for the baby." Then, last of the three and by long odds the worst especially because of its dangerous action upon the brain of even a well child, much less one threatened with cholera infantum—comes paregoric, the "mild" tincture of opium; that drug that contains fourteen alkaloids. Then the calomel, sodium bicarbonate and ipecac (all good), but given *morning* and *evening.* Again the italics are mine. This is no case of ordinary constipation to admit of dosage twice a day; it requires something more prompt. And be it understood, there is no desire to "criticise" this brother personally,

for I do not know him; moreover, I wish him the best of success, but the above line of treatment is so ancient, inadequate, positively harmful in view of modern therapeutic revelation, that one cannot refrain from criticizing it with the belief that something vastly more scientific, prompt and certain, may be substituted therefor.

A good dose of castor oil at once would remove the offending mass of fermentative material from the intestinal tract. Or, the calomel and sodium bicarbonate tablet every hour till five are taken and a dose of saline laxative to clean out the bowels.

To combat the fever and congestion, cold perspiration, vomiting, dissolve two granules each, aconitine, gr. 1-134, atropine, gr. 1-500, Strychnine arsenate, gr. 1-134, in twenty-four teaspoonfuls water (from the tea-kettle, sterilized) and give a teaspoonful of the solution every half hour until the skin becomes warm and indicates the return of blood to the periphery, relieving the congestion; the vomiting ceases and general improvement ensues, or the pupils show decided action of the atropine. Then stop or continue every one or two hours. If there is much indication of pain (and there is usually considerable) and a granule of codeine, gr. 1-67, with each teaspoonful of the above solution—but don't—*don't* give paregoric or laudanum to a baby!

After the bowels have been opened by the oil or calomel and the vomiting has subsided (and this should be brought about in less time than would be consumed in the interval of two of the good doctor's four hour doses) give the sulphocarbolate of zinc granules gr. 1-6 every half to one hour until all disagreeable odor has disappeared from the stools. If the case is very urgent, the stools are frequent and copious, a five grain tablet of the W-A Intestinal Antiseptic (Sulphocarbolates, calcium, sodium and zinc) may be divided in quarters and given instead of the granules. This preparation is safe, because it is pure, and may be pushed to effect.

To sum up: Use definite, reliable medicaments; else what is the use of our modern advances in pharmaceutical chemistry? Clean out the intestinal tract as soon as possible. Restore circulatory equilibrium, reduce temperature, relieve pain. Obtain and keep a condition of intestinal asepsis, restrict the diet the first twenty-four hours to sterilized water, if need be, and in the end the disease is cut short, thereby saving an unnecessary loss of vitality at an age, and season of the year when the patient can ill afford to make the fight for existence, at best.

521 W. 123rd St.

THE CO-ORDINATE FUNCTIONS OF FUNERAL DIRECTORS AND HEALTH OFFICERS.*

J. Warren Roberts, Burlington, Vt.

The health officer and funeral director are working along the same lines in many ways, and I think it is very important yea, and a necessity, that they co-operate in their efforts to give the public the best service to be had. The physician and health officer's profession is to create good health. What do we mean by health? What is its definition? The most satisfactory one with which we are acquainted is one founded upon Bichat's definition of life, which he declares to be the "organization." From this we describe health as a perfect organization in perfect action, and disease divergent from health as disturbed organization in disturbed action.

"You that have health," says he, "and know not how to prize it, I'll tell you what it is that you may love it better, put a higher value upon it, and endeavor to preserve it with more serious, stricter observance and intuition."

*Read before the June meeting of the Vt. School for Health Officers.

Health is that which makes your meat and drink more savory and pleasant; else the natural functions of eating and drinking were a hard task and a slavish custom. Health is that which makes your bed easy and sleep refreshing, that revives your strength with the rising sun and makes you cheerful at the light of another day. It is that which fills up the hollow and uneven places and makes your body plump and comely. It is that which dresses you up in nature's richest attire, and adorns your face with her choicest colors. 'Tis that which makes exercise a sport and walking abroad the enjoyment of your liberty. 'Tis that which makes fertile and increaseth the natural endowments of your mind and preserves them long from decay. Makes your wit acute and memory retentative. 'Tis that which supports the fragility of a corruptible body and preserves the vigor and beauty of growth. 'Tis that which makes the soul take delight in her mansions sporting herself at the casements of your eyes. 'Tis that which makes pleasure a pleasure and delight delightful. Without which you can solace yourself with nothing of earthly felicity or enjoyment.

But now take a view of yourself when health has turned its back upon you and deserts your company. See then how the scene is changed, how you are robbed and spoiled of all good comfort and enjoyment. Sleep that was stretched out from evening to the fair bright day is now broken into pieces and subdivided. The night which before seemed short is now too long, and the downy bed presseth hard against the bones. Exercise is now toiling and walking abroad the carrying of a burden; the eye that flashed as lightning is now like the spacious body of a thick cloud rolling from east to west. Swifter than a celestial orb is now tired and weary with standing still, it has lost its penetrating influence and has become obscure and dull." If such then be the true picture of the opposing conditions of health and disease what stronger inducement can any one have to give him an interest in the study and observance of nature's institution, seeing these are the only means by which the beloved ends and wished for enjoyment can be attained. What calling or profession is of more vital importance than is ours, to preserve health and prevent the spread of infectious and contagious diseases and the public are looking and expecting this from us. The funeral director is called when the family is grief-stricken. He is called upon by people in all walks of life and to care for the results of all kinds of diseases, including contagious and infectious. He is expected to protect the family and friends from all danger as well as to care for the deceased. He is called upon to care for all kinds of diseases, many times for transportation to a long distance and the public expect that we are capable of all this if we are in the profession. And I ask, gentlemen, in what profession next to the medical profession is it more important to have a thorough knowledge of the profession than of funeral directing and embalming? Our national body has been organized twenty-two years and has been hard at work for improved conditions. Nearly all of the States in the Union have State associations. The association of the State of Vermont has been organized only four years and we are proud to say that we have made more progress than many States that have been organized longer. The object of our association is education, legislation and elevation in our profession. The most important part of our work in common with yours is the care of contagious and infectious diseases and transportation of dead bodies. Contagious and infectious diseases call for special attention in your work, and is it not as important that they should have proper care after death as well as before? It was

in 1895, I believe, that the conference of State and Provincial Boards of Health, the American Association of General Baggage Agents and the National Funeral Directors' Association began working together to formulate some practical rules which were put into force by the conference of State and Provincial Boards of Health at its meeting in 1897. These rules were slightly amended at the 1902 meeting of the same organizations. When we reflect upon the improved methods that are now pretty generally current throughout the country as compared with those that existed but a few years ago, as well as the manner in which those methods are intended to be still further simplified and improved in the near future it is fair to assume that our efforts have not been without good results, and that therefore the conference of State and Provincial Boards of Health, the American Association of General Baggage Agents and the National Funeral Directors' Association are entitled to great credit for all that has been accomplished in the way of improvements referred to. But our work has only begun, we cannot yet rest upon our laurels and claim that perfection has been reached. The very first rule concerning the transportation of dead bodies absolutely forbids the transportation of bodies dead from yellow fever. When this rule was made in 1898 this was sound doctrine, according to the light we then had. It was a great surprise to the medical profession to be told as they were in 1900, that neither the yellow fever patient nor his body, nor any of his personal belongings, are in themselves capable of conveying the disease to other people, yet it is simple enough. The living infective agent of yellow fever does not pass directly from man to man —but lives part of its life in the body of a mosquito. The medical department of the U. S. Army sent out in 1899 a party of experts to Cuba to study yellow fever under the leadership of Major Walter Reed. Does any single achievement of American brains or American pluck in the past five years surpass this work of the yellow fever commission of the U. S. Army? I can think of nothing greater.

It may interest you to know that the body of a person dead from yellow fever might be passed from hand to hand all the way from Havana to Burlington and not one person would be infected with yellow fever from that body. More wonderful still if a person in Havana were infected with yellow fever he could start at once for Vermont, he might sicken and die in our city and not involve the slightest danger to the public. Is it not time gentlemen, that we should interest ourselves in the care and transportation of dead bodies when there are such restrictions put upon a harmless case such as this and at the same time there is no protection to the public in the case of tuberculosis and other harmful diseases? The Americans are a traveling people and their ante-mortem wish, as well as the wish of their friends, in the event of death away from home is, a a rule, that they be sent home for burial. American people demand the best from all the professions as well as in other walks of life, and what is true of the American people is true of the people of Vermont. They demand the brightest and best men to represent them at Washington. Do you know that the people of Vermont have more money in savings banks and trust companies, according to their population, than any other State in the Union and what Vermont and the American people demand they are willing to pay for.

Now, gentlemen, what is our opportunity and duty? We must admit that we have not the best—are we content to rest where we are and acknowledge that we cannot progress? Vermont should have just as good legislation and protection in her health department and

in the care of her dead as any State in the Union and it is within our power to have it. I have drawn up a bill to present to the Legislature this fall and I hope and expect to have your hearty co-operation and support in this measure.

Our national commission expect to have national legislation along these lines in the near future and in order to co-operate with and support them in their work we must do all we can to procure the proper legislation in our own State before we will be in a position to meet national legislation.

While it has been truly said that experience is the best teacher, yet there is no denying that it is in many instances a very dear one. The progressive man of to-day is he who is ever ready to profit by the experience of others. Various are the prices paid by men in the professions to-day who must have experience of their own before they can be convinced, and many times the price is failure. A little personal experience is a good thing, but it is still better to studiously avoid the experience of those who have met with shipwreck. I hope that the State Board of Health in Vermont will take action in these matters and not allow a record such as the Massachusetts State Board of Health have made. They have been severely criticised throughout the U. S., and I do not hesitate to say that in my opinion they are not fit persons to be at the head of any health department and have committed a gross injustice to the citizens of their State.

Let us ever strive to elevate our profession and take such action in these important matters as will terminate in the greatest good for the greatest number.

A USEFUL REMEDY.

By F. C. Lewis, M. D., Burlington, Vt.

One of the most important duties physicians are called upon to perform is the relief of pain. Some one has said that a person in pain is not a sane person. The truth of this is apparent to every medical man who observes his cases close enough to note the effect of severe or continued physical suffering on the nervous system and mental condition. It is an erroneous idea that pain sanctifies a person, or improves the disposition. Rather, its tendency is to depress, and render more liable to the deleterious influence of morbid impressions. Pain obscures the mental vision, makes a person selfish and narrow, stimulates the unhealthy habit of introspection, and in every way works harm and injury.

The importance, therefore, of relieving pain, not only in the interests of the patient, but also for the sake of increasing, if possible, the sum total of the world's cheerfulness and mental sunshine, is apparent.

One of the very best drugs at the command of the profession is Pheno-Bromate. It has a varied field of usefulness, but as a pain reliever it exercises its most conspicuous power. This remedy is a synthetic combination of derivatives of the phenetidin and bromine groups and is not a coal tar product. Its especial features are its complete freedom from depressing effects on the heart or circulation and that it performs its functions without a single disagreeable sensation or after effect. In its action it is prompt, and severe pain responds to its influence in a remarkably short time. In the presence of serious heart lesions its administration is perfectly safe and through its sedative influence on the nervous system, an irritable heart can often be regulated and strengthened.

In spite of the positive effects of Pheno-Bromate it never creates a drug habit, and its withdrawal is never followed by suffering or distress. In the treatment of morphine addiction it is extremely valuable and used properly, in the great majority of cases, morphine

can be rapidly decreased and completely withdrawn with a minimum amount of discomfort to the patient. Indeed Pheno-Bromate is unquestionably one of the very best agents at our command for the careful, humane treatment of drug addiction and its complications. Its value in these conditions should be more generally recognized.

Another field of usefulness in which Pheno-Bromate deserves especial recognition is for the relief of pain accompanying functional derangements of the uterus, ovaries and tubes. It would seem almost as though this drug had a selective influence on the sensitive nervous system of the female organs. Certainly the most severe and obstinate forms of dysmenorrhea respond to its analgesic effect in an incredibly short time. As an adjuvant to other treatment its value is pronounced, but in many cases of functional dysmenorrhea of young girls, through its relaxing and sedative influence, it is distinctly curative of itself. Numerous cases of chronic persistent dysmenorrhea could be cited where Pheno-Bromate has given prompt relief, and actually accomplished a cure. These cases are similar to those constantly met by all physicians and the only significant feature is the prompt and permanent relief afforded by the administration of Pheno-Bromate over several monthly periods.

As an antipyretic Pheno-Bromate is reliable and satisfactory. Not only in the acute febrile conditions of the acute diseases, but in the more chronic fever of pulmonary tuberculosis its influence is prompt and prolonged. As an antipyretic it should be given in liberal dosage, but no fear need be entertained of circulatory depression. The temperature should be taken often and the remedy discontinued as soon as a drop is observed. In pneumonia and la grippe it is remarkably effective and combined with codeine and such stimulation as occasion demands, forms an ideal treatment for the average case of an acute infectious disease.

The many diseases in which Pheno-Bromate can be used cannot be enumerated here, but its value as an analgesic, antipyretic and hypnotic suggest a range of usefulness far beyond the average drug. Its prompt and efficient action, its freedom from disagreeable effect, and above all the fact that it never creates a habit are responsible for the prominent place it fills in the armamentarium of thousands of physicians all over the country. The more it is used, the more useful it becomes.

NEWS, NOTES AND ANNOUNCEMENTS.

The American Medical Association meeting at Atlantic City was one of the most successful in the history of the organization. The attendance was large, the papers highly interesting and the weather was perfect. A large number of Vermont physicians were present.

Abdominal Pain as a Symptom in Acute Lobar Pneumonia.—J. R. Smith refers to a series of cases recently under observation, in every one of which the initial symptoms of the disease included abdominal pain. In each case the signs and symptoms were typical of acute lobar-pneumonia. In two instances the pain was so severe as to call for the hypodermic use of morphine.—*Ex.*

Dr. A. O. J. Kelly, Professor of Practice in the University of Vermont Medical Department, leaves shortly for Europe, accompanied by Mrs. Kelly.

Excessive or Offensive Perspiration.—The most frequent form of this trouble is local in nature, and affects the axilla, parts about the genitalia, the feet, the palms of the hands, etc. The sweat may have only the odor of the affected part, or it may have an offensive odor peculiarly its own. Bathing once or twice a day with a solution of formaldehyde, a drachm to the quart, will promptly cure the trouble.—*Medical Summary.*

Pleuritic Pains.—Dr. Robinson prescribes 30 grains of menthol, a dram each of guaiacol, camphor, chloral and methyl salicylate and lanolin to make an ounce. A small quantity of the ointment it rubbed into the skin over the painful region, and covered with oiled silk.—*The Med. Summary.*

Umbilical Haemorrhage.—In hæmorrhage from the umbilicus in infants, if pressure fails to stop it, pass two pins under the navel, at right angles to each other, and apply a suture twisted below them.—*International Journal of Surgery.*

TAKE THE STRAIGHT ROAD TO YOUR GOAL.

In the early days of railroading, in laying a track through hilly or mountainous regions, engineers went around most of the hills and curves, followed the valleys, and often turned aside from even slight obstructions.

Many young men, in laying the tracks of their careers, follow the methods of early railroad construction. They avoid every hill of difficulty, go around long curves, turn aside from every obstruction, no matter how trifling, and always follow the line of least resistance.

In our day, however, railroad engineers, in laying a track, follow as direct a route as possible. They go through hills, tunnel mountains, and span huge gorges, not only because a straight line is the shortest distance between two points, and thus saves time, but also because it lessens the risk of being wrecked.

A young man who believes that making a life is more important than making a living will follow the methods of the modern railroad engineer. He will not shrink from the obstacles that spring up in his path. He will not creep around hills or mountains of difficulty. He will forge the way to his goal by the shortest and most direct route, no matter what opposes his passage.

It costs a railroad company more to tunnel mountains and span chasms than it would to build its road around those difficulties, but the time saved to its passengers and the risks avoided by following the safest and most direct route more than trebles its profits.

So, it costs a young man more in energy and perseverance to span abysses of ignorance, to force his way through mountains of difficulty in order to attain a sound education and special training for his work; it takes more effort and self-denial to build a straight, well-made road through the hilly, rock-strewn country of Life, than to make a long, winding, uneven road by avoiding the hills and rocks of opposition; but, like the engineer, you will find yourself more than trebly repaid for your trouble in forcing your way through all obstacles to your goal.

A straight road for one's career means honesty, the respect of those who have any dealings with you, the confidence of your bank, good credit, a high standing in your community, influence, individual power, enlarged opportunities for doing good, and, crowning good of all, it means self-approval.—*Success.*

The Vermont Medical Monthly.

A JOURNAL OF REVIEW, REFORM AND PROGRESS IN THE MEDICAL SCIENCES.

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Burlington, Vt., June 25, 1904.

EDITORIAL.

THE SCHOOL FOR HEALTH OFFICERS.

This year's session of the Vermont School for Health Officers was unusually successful. It is rare that medical meetings have the pleasure of listening to as many famous men as did this one. Both Dr. Flick, Director of the Phipps Institute in Philadelphia, and Dr. Gould, Editor of *American Medicine,* have more than a national reputation in scientific circles and their addresses were remarkably interesting and instructive. The other papers presented to the meeting were of a high order, especially the one by Mr. J. Warren Roberts of Burlington, which elicited much interest and favorable comment. In every respect the School for Health Officers, as it is called, was valuable to those who enjoyed the opportunity of attending, and too high praise cannot be given to those of the State Board of Health who directed affairs, and are responsible for its success. Vermont and Vermont people have every reason to feel proud of the public health system in the State, and we are echoing a general sentiment when we say that a great deal of confidence is felt in the men at the head of health affairs in Vermont. Every medical man in the State should take great pride in the way our Board of Health conducts its business and performs its duties, for in so doing the members of the Board emphasize the important relation that scientific medicine bears to the welfare of the State. Thoughtless people are apt to minimize the benefits that come from health legislation, but those of us who know what our State Board of Health is doing, and realize the remarkable efficiency of the State Laboratory of Hygiene cannot help but feel that the loss of no other branch of the State government would prove as serious to the people at large as would that of the State Board of Health. There is little danger, however, of the State Board of Health ever being restricted in their labors, and as their influence is better realized each year we may look for substantial increase in their powers and the appropriation at their command.

DIAGNOSIS, THE KEY TO MEDICAL SUCCESS.

The carelessness with which some physicians examine their patients is little short of criminal. How such men ever make an accurate diagnosis of diseases affecting the internal organs is beyond comprehension.

It is a truism that accurate diagnosis is the key to medical success. The treatment of a disease is comparatively simple when its true character and extent are known, but medication of a hit or a miss type must be cautiously and skilfully used to avoid doing great and possibly irreparable harm. If every young practitioner on commencing his professional career would appreciate the paramount importance of becoming a good diagnostician rather than a therapeutist, he would accom-

plish far more for himself in the first five years of his practice, to say nothing of the immeasurable benefits that his patients would receive. The importance of cultivating careful methods of diagnosis, particularly of physical diagnosis cannot be over estimated. It matters not how unimportant the case, or how trivial the affection, the methods of determining the exact trouble and its extent should be thorough and complete. In this way a reputation for thoroughness will be won, and the incalculable amount of information that will be added to the examiner's knowledge will be apparent in future work. Normal conditions are the standard, and the more familiar one is with normal sounds and functions, the more capable they are to recognize those deviations from the normal which constitute disease.

All in all, time used in making an accurate diagnosis, and eliminating possible conditions is time well spent. It will bring its returns a hundred fold in money, reputation and above all in usefulness.

MEDICAL ABSTRACTS.

Heart-Action, Effect of the Application of Cold on.—The author has made some very careful observations in various diseased conditions, in order to determine the truth of the almost universally accepted dictum that cold acts as a sedative to cardiac action. He comes to the conclusion that the application of cold in the cardiac region benefits a certain class of patients suffering from cardiac insufficiency, whether of a neurotic or organic nature. This is shown by an improvement in the pulse-rate, a reduction in its frequency, and an increased arterial pressure. He considers that one of the most important factors in the attainment of a favorable result is the enforced quiet to which the patient is subjected. In other cases no results can be perceived of an objective character, and these cooling methods cannot compare in their effects with digitalis. The application of cold is agreeable to the patient, but equally good effects are produced in most cases by water of an indifferent temperature. Moreover the application of a certain amount of moderate pressure on the cardiac region also seems to relieve the patient to a more or less marked degree.—*W. Krebs* (*Berliner klinische Wochenschrift,* April 25, 1904.)

The Odor of Races.—According to an editorial in the New York *Times,* a Japanese doctor of medicine publishes a treatise concerning the odor of the occidental races, sustaining the proposition that at first the orientals do not like it. They grow used to it in time, however, and finally, with continued experience, do not notice it at all. It seems to be his opinion that each race has its peculiar fragrance, and that it is partly radical, but is in a measure influenced by dietary and other conditions. So far as his people are concerned they do not smell each other, but he does not think this is conclusive proof that they are odorless. They probably have their own perfume perceptible to aliens—the Russians can smell them a long way off—but among themselves it is not noticed. It is, however, nothing like the pungent and penetrating emanation proceeding from the western nations, in which traces of garlic and ancient cheese and the volatilization of a coarse and over-abundant dietary are so sure to be found. The theory thus developed is a curious one, and it is more curious still that it was left to Japan to give it development and formulation. If it signifies a particularly refined sensibility to odors among that interesting people their possession

of it may readily be admitted, as their old dower is refinement, and not in any single manifestation, but covering every phase of perception. Perhaps in this they do not exceed their near neighbors, the Chinese, who may equally find the smell of foreigners disagreeable, but who have hitherto been too proud and stoical and contemptuous of the pungent and effluvious barbarian to say so. That country has had unrivaled opportunities to study the oder of countless tribes of outlanders from the beginnings of its recorded history and before, but so far has not said a word about it.—*American Medicine.*

Action of Atropin on the Bowels.—Ostermaier (*Muench. Medizin. Wochenschrift*) uses atropin as a routine treatment in cases of ileus. He commences his treatment by administering 1 or 2 mg. and follows this at intervals of about thirty minutes with 1.5 mg. until the action of the drug is manifested. It supplants opium in the treatment of this condition but by no means takes the place of operative interference in cases where this is necessary. In cases of incarcerated hernia it is a substitute for taxis, but when operation is indicated it should not be delayed in favor of the atropin. He is convinced that it is of equal importance, therapeutically, with quinin, mercury and iodin.—*The Med. Stand.*

STRAY THOUGHTS.

The Value of Appearances.—Surroundings have a great deal to do with one's appreciation of anything. You might be very hungry, for instance, but, on entering a cheap restaurant, where everything was dingy and dirty, where the crockery was very much chipped, thick, and not even clean, where the sense of smell was offended by the mixed odors of fish, flesh, onions, and all kinds of vegetables, where the floors, tables, and napkins were dirty, and where the waiters were greasy-jacketed and generally untidy, your appetite would disappear as if by magic. Nothing would appeal to the eye or to the nostrils. No matter how good the fare, you could not eat heartily amid such repulsive surroundings.

Let the same food placed before you in the cheap, untidy restaurant be served to you in the Waldorf-Astoria, or some fashionable restaurant, with the accessories of delicate china, snowy napery, silver, and glass, amid palms and flowers and lights, with uniformed, attentive waiters to anticipate your wishes, and you will eat with a relish that which in different settings almost nauseated you.

Successful merchants who have made a study of business methods are well aware of this susceptibility to surroundings and general appearances. They cater to the eyes as well as to the judgment and common sense of their customers. They pay men large salaries to dress their windows attractively, so as to "draw" patrons. With the aid of tempting show windows, a choice arrangement of wares, and the general attractiveness of their stores, backed by polite, neatly dressed clerks, they sell goods which would become shopworn on the shelves of less effectively arranged stores on the very same street.

The same principle is true in many other kinds of business. If a man enters a barber's shop, for instance, and sees soiled towels scattered around, one in use, perhaps, on a customer, or if he sees dirty shaving mugs, hair brushes, combs, and other toilet articles that are not scrupulously clean, he is at once prejudiced against the place and will not return.

We are often, it may be unconsciously, greatly influenced by appearances. An attrac-

tive personality clothed in a well-made and becoming dress will often win against more solid acquirements when combined with a disagreeable personality and slouchy, unbecoming dress.—*Success.*

Good Deeds.—The book was opened. Men in wonder stood. No record kept of wrong; it told of good, each deed of love. A soul crept up in fright, then passed into the dark—his page was white!—*Anon.*

Why is it that the great majority of patients dislike to admit improvement in their condition? Their pain may have ceased, their appetite improved, their weight increased, they may sleep like little children, but they are loathe to say, "I am better." The statement, if made, is qualified to such an extent that it is buried under a train of symptoms and the real improvement lost right of in the accumulation of trivialities.

If people could only realize that their comfort would be greatly increased by looking for improvement in their condition instead of seeking the seemingly bad symptoms, how much happier the world would be! Health is a thousand times more pleasant to talk about than disease, especially when it refers to one's self, and one's condition is never so bad but that there is some feature of it to be thankful for,—that it is no worse if nothing else.

NEWER REMEDIES.

Enterocolitis and Cholera Infantum.—Cleanse the intestinal tract with calomel and a saline or with castor oil. Prescribe a suitable diet, easily digested and non-irritating. Irrigate the rectum and colon at suitable intervals with normal salt solution or some mild antiseptic, using for the purpose a soft rubber catheter or colon tube.

Instead of opiates, which lock up the secretions and thereby favor auto-intoxication, relieve the muscular rigidity and the excruciating pain which is such a drain upon the vital forces, by the use of Antiphlogistine as hot as can be borne to the entire abdominal walls and covered with absorbent cotton and a compress. If the patient is not too far gone, the effect will be astonishing. The little sufferer, who until now has been tossing in agony and restlessness, with drawn features, will in most cases quickly become quiet; the drawn look will leave the face and a restful slumber will often supervene and start him upon the road to recovery.

The explanation of this, in part, is not far to seek. The heat and moisture combined with Antiphlogistine's well-known hygroscopic properties, directly soothe the inflamed parts, reflexly contracting the visceral blood-vessels and relieving their engorgement. The tension of the muscular and nervous systems is further relieved by the action of Antiphlogistine through the solar plexus, thus adding to and emphasizing its local effects upon the inflamed intestines.

Neurotic Conditions in Women.—Prof. Chas. J. Vaughan, Chair of Gynaecology, Atlanta College of Physicians and Surgeons, writes: "Neuralgia constitutes the great cause of danger from the employment of hypnotics and narcotics, which only afford relief of numbing, but effect no cure. On the other hand, the formation of a drug habit rather aggravates the condition from which relief was originally sought. Neurasthenia, neuralgia and other manifestations, either of an active or passive character, are common and are always pecu-

liarly rebellious to treatment. Cerebro-nervous affections peculiar to women associated with pathological disturbances of the reproductive organs are legion, and most trying to physician and patient. I have found nothing so well suited to these cases as Antikamnia Tablets, administered in doses of from one to three tablets and repeated every one, two or three hours according to the attendant's judgment. These tablets afford complete relief without fostering a drug habit and their exhibition is attended with no unpleasant after-effects. For the relief of painful menstruation there is no combination of remedies so generally successful as Antikamnia & Codeine Tablets. Their sedative, analgesic and anodyne properties especially commend them in the neuralgic and congestive forms of this distressing affection."

HAY FEVER.

For years the malady known as hay fever has been the theme of many an able discussion. Its etiology, pathology, prophylaxis and treatment often have been the subject of study and experiment by physicians, and also by intelligent laymen. The disease has been described as a catarrhal affection of the conjunctivae and the mucous membrane of the respiratory tract, characterized by an annual recurrence at about the same date in a given case. Another view is that the disease is a neurosis, and that the local symptoms (rhinorrhea, sensory disturbances, etc.) are due to vasomotor paralysis.

The most conspicuous symptoms of hay fever are a burning and itching sensation in the nasal region and between the eyes; violent paroxysms of sneezing; a copious discharge of serum and liquid mucous from the nasal passages; profuse lacrimation; now and then, febrile manifestations; frontal headache; and in not a few cases, some asthma.

The diagnosis having been established the subject of prevention and treatment is of the utmost importance. It would be utterly useless and wearisome to attempt to review the list of remedies and the methods of treatment that have been proposed for this disorder. The interests of physicians and patients will best be served by a recital of facts respecting the most successful mode of treatment known at this time.

A glance at the list of symptoms and a brief consideration of the pathology of hay fever lead to the immediate conclusion that the chief indications are to check the discharge, allay the irritation that gives rise to the paroxysms of sneezing, reduce the turgescence of the nasal mucosa and relieve the stenosis. The only single remedy that meets these indications is Adrenalin as represented in Solution Adrenalin Chloride and Adrenalin Inhalant. By stimulating the vasomotor supply it contracts the arterioles, and thus promptly and efficiently relieves all the annoying symptoms referable to vasomotor paralysis. By its powerful astringent action upon the mucous membrane, which it blanches completely in a few moments, it controls symptoms referable to a catarrhal inflammation of that structure. Indeed the results that have been accomplished with Adrenalin in this field alone are really remarkable and of the utmost importance. Parke, Davis & Co., who market Solution Adrenalin Chloride and Adrenalin Inhalant, have prepared a very complete treatise on the topic, which contains more information than is to be found in the average text-book. They will cheerfully mail a copy of the booklet to any physician applying for it.

SPECIAL ABSTRACT.

RECENT RESEARCHES IN CANCER.—*By Dr. James Miller* (*Birmingham Medical Review,* June, 1904, p. 379.)

For some time past investigators in this field have been directing their attention chiefly to the question as to whether some living organism is or is not the cause of cancer. Starting from analogy with diseases such as coccidiosis in the rabbit, where we have the presence of one of the sporozoa giving rise to the formation of papillomatous growths within dilated bile-ducts, investigators have attempted to show that similar organisms are present in cancerous cells. Thus sporozoa of various kinds, yeasts, psorosperms, and bacteria have all been described as occurring within the cancer cell. Many of these observations have been proved to have been incorrect.

Stiles (*Liverpool Med.-Chir. Jour.,* October 1902,) has shown that at least some of these bodies are simply cell-degenerations. So that at the present time one may say that there is no one organism that is even probably causally related to the cancerous process.

Progress has, however, been made in other directions. It has been shown that certain malignant tumors are definitely inoculable. Jensen (*Cbl. f. Bact.,* 1904, 32) has found such a tumor in white mice. He inoculated minute portions of this tumor, which was an adeno-carcinoma, into the subcutaneous tissue of a large number of other white mice. About 834 have in this way been inoculated; of these 232 died in the course of the first 14 days; of the others, 249 developed tumors which reached in some cases a very large size. The method of inoculation was either to mince a small portion of the tumor in a mortar, suspend it in normal saline solution, and then inject it, or simply to insert a piece of the tumor under the skin.

The course of the disease following injection was practically always the same. The portion of tumor introduced disappeared in a few days' time. After about 14 days a nodule could be felt. This grew in the space of two or three weeks to the size of a pea or even of a bean. Ultimately, after some months the tumor might be the size of the mouse itself. In some cases the presence of the tumor appeared to produce little effect, in other cases there was loss of weight.

The tumor was also inoculated into the grey house-mouse. At first only an occasional animal became affected, but subsequently inoculation from one of these animals produced the tumor more easily.

A series of observations were made in order to establish the fate of the piece of tumor introduced—whether it itself grew or whether it incited tissues around it to grow. There was no difficulty in demonstrating that the greater part of the piece underwent progressive destruction, but that groups of cells remained which, after a week or so, began to grow and multiply again, and that these cells reproduced the structure of the original tumor. Nothing in the least suggestive of any form of parasite was found. These results have been confirmed by Bashford and Murray (*Lancet,* February 13).

It might have been thought that the careful observation of cancer cells during the last few decades under high powers of the microscope would have discovered all that there was to find out as regards the minute structure of these cells and their behavior when undergoing division. But that this is not the case the discoveries of the last few months have shown.

When a cell undergoes indirect or mitotic division its nucleus passes through a series of definite and fairly constant changes. The chromatin substance of the nucleus increases in staining power, it loses its net-like arrange-

ment, and finally gives rise to a definite number of separate intensely-staining bodies, known as chromosomes. These chromosomes vary in number in different species of plants and animals. In man the number is stated to be 32, in the mouse, the trout, and the lily it is 24, in the shark 36, and so on. While this differentiation of the chromatin into chromosomes is going on, what is known as the amphiaster is formed. This consists of a series of fibres forming a spindle radiating from two bodies called centrosomes. At first the chromosomes group themselves in a plane passing through the equator of the spindle, thus forming what is known as the equatorial plate. The next change is that each chromosome splits lengthwise into two exactly similar halves. These halves separate and pass to opposite poles of the spindle, and each group of these daughter-chromosomes gives rise to a daughter-nucleus. Subsequently the protoplasm of the cell divides, and thus two new cells arise.

The above series of changes was found to hold good for the vast majority of the cells of an animal when undergoing mitotic division. It was, however, noticed that the conjugating germ cells—the spermatozoon and the ovum—each contained one-half the number of chromosomes characteristic of the body cells. On further examination, it was found that this reduction in the number of chromosomes took place in animals during the course of the last two cell-divisions previous to the formation of the true germ cells or gametes. Each of the four cells thus formed during the period of preparation for fertilization or maturation, as it is called, has only half the usual number of chromosomes. In the female only one of the four cells goes to form the ovum proper; the other three form what are known as the polar bodies, which are thrown out. In the male all four become functional spermatozoa. The process of reduction is apparently a provision to keep the number of chromosomes characteristic for any given species constant, because if it did not occur the number would be doubled at each subsequent fertilization.

These series of mitotic divisions which occur during the process of maturation, and which are characterized by this reduction to half the usual number of chromosomes, are known as heterotype mitoses, whereas the ordinary forms of nuclear-division which occur when all the other cells of the body multiply are known as somatic or homotype mitoses.

The reduction in number is apparently affected by a fusion together of chromosomes, and the somatic type is re-established by the chromosomes of the male and female gametes not fusing with each other, but remaining separate.

There is, however, a further difference between the homotype and the heterotype forms of mitotic division; in the former the chromosomes are either rod-shaped or V-shaped; in the latter they are in the form of rings or loops, so that it is possible to state whether a given mitotic figure is homotype or heterotype by the appearance of its chromosomes, as well as by their number.

Now, while what has been stated holds good for plants as well as animals, certain further facts were observed by botanists which throw light upon the meaning of the whole process.

Strasburger found that in the ferns all the cells of the prothallus or sexual generation, from the original spore-mother cell onwards to the formation of the germ cells, have only one-half the number of chromosomes found in the fern plant or asexual generation; in osmunda, for instance, the number is 12 instead of 24. He found, further, that in the angiosperms the two maturation divisions are

in both sexes followed by one or more divisions in which the reduced number persists. From this he concluded that the cells thus formed represent the vestiges of the sexual generation in the higher cryptogams, analogous to the prothallus of the ferns, that, in other words, an alternation of generations occurs in the higher plants as well as in the lower, although the sexual generation or gametophyte remains within the asexual or sporophyte. Strasburger further suggested that this idea might be applied to the animal kingdom, "that the four cells arising by the division of the oogonium (egg cell and three polar bodies) represent the remains of a separate generation, now a mere remnant in the body in somewhat the same manner that the rudimentary prothallus of angiosperms is included in the embryo sac" (Wilson, "The Cell.")

A further point of interest is that Boveri, confirmed by Brauer, has shown that in parthenogenesis the second polar body plays the part of the sperm nucleus, and re-establishes the somatic number of chromosomes (*Ibid.*)

But to return to the question of cancer. In a paper read before the Royal Society on December 10, 1903, Farmer describes the results of researches carried out by him in collaboration with Messrs. Moore and Walker. These investigators observed that in malignant growths, in the cancer cells which are undergoing division both the homotype and heterotype mitoses might be seen. Near the margin of actively-growing malignant tumors, such as epitheliomata, the nuclei which are dividing usually exhibit mitosis typical of somatic cells (homotype). Also some abnormal forms of mitosis may be seen, *e.g.*, an excessive number of chromosomes, here and there pluripolar figures, or even absence of true mitosis and division without differentiation of the chromatin of the nucleus into chromosomes. "But in spite of these facts, the heterotype divisions can be recognized with certainty in every malignant growth so far examined, and it is precisely similar in character to the normal heterotype that occurs in the sexually-reproductive cell series. The same peculiarities in the early differentiation of the chromosomes culminating in the production of rings, loops, etc., the same reduction in the number, and the same transverse division of each one when attached to the spindle, reappear in these cells with the greatest uniformity" (Farmer, *Nature,* February 14, 1903).

This occurrence of heterotype mitosis seems to be confined to tumors of a malignant character. It has not been observed in any growth of a benign nature, nor has it been seen in the cell divisions which occur in inflammation and other pathological processes. According to the authors, we have in this a means of distinguishing microscopically between simple and malignant tumors.

Bashford and Murray, in a paper communicated to the Royal Society by Rose Bradford on January 21 (see *Lancet,* February 13, 1904), confirm Farmer's results. These authors have further investigated the question as to how far similar phenomena are characteristic of the malignant new growths occurring in animals. Their results with tumors from the trout, mouse, and dog have been completely in accord with those of Farmer, Moore, and Walker. "In the columnar cell carcinoma of the trout the phenomena were especially distinct, the small number of chromosomes, the striking contrast between the long slender chromosomes of the somatic mitoses, and the rings of the heterotype division being of diagrammatic clearness. Homotype mitoses occurred, but were few in number." (*Lancet,* January 13).

Now arises the question: What is the

meaning of these peculiar forms of nuclear division as they occur in malignant growths? Their meaning as they occur in the life cycle of the animal is still uncertain, therefore one can only theorize on the question.

Farmer gives his conclusions thus: "Just as the true gametes (sexual cells) may fuse, so, too, cases of nuclear fusion are not very uncommon in the post-heterotype cells of malignant growths. Fusion figures strongly recall instances of normal fertilization." It is not urged that the cancer cells are functionally active sexual elements, but rather that they are homologues with such. It has therefore been proposed to express this idea by applying the term gametoid to them." (*Nature*, February 14).

Farmer's suggestion is therefore that, as a result of the heterotype mitosis of cancer cells, new cells arise which may, by fusion with other similar cells, become in a sense fertilized, their subsequent nuclear divisions being ordinary homotype or somatic forms. This reminds one somewhat of what is described as occurring in parthenogenesis.

Bashford and Murray conclude thus: "The cells which have undergone the reducing division are not responsible for the active invasion of the surrounding tissues, nor for the production of matastases; the cells dividing somatically are responsible for both. The number of heterotype mitoses may not stand in any relation to the degree of malignancy, and their absence is only presumptive evidence of the benign character of the tumor. We postulate nothing as to the future of the cells which have undergone the reducing division, though we believe the latter to be a terminal phase in the life cycle of cancer cells, as it is in the history of sexual cells in animals. The local origin, and the expansive and infiltrating growth of cancer in its relation to surrounding tissues, while respecting its own proper elements, is the criterion of its malignancy. This stamps it as belonging to a new cycle comparable in its entirety to the whole organism which is invading, rather than to any one of its tissues, reproductive or otherwise." (note to report in *Lancet*).

In this state of uncertainty one must leave the subject at present, but, although it has not led to any practical results as yet, the gametoid theory has given to cancer research a new stimulus, and one which it much needed, in a fresh direction.—*The Post Graduate.*

GASTRO-INTESTINAL IRRITATIONS AND THEIR TREATMENT.

By Brose S. Horne, M. D., Ex-Physician Indiana State Prison, Marion, Ind.

Enteritis is only a clinical expression and the disease is due to many causes. The most fruitful cause is drinking water contaminated by the discharges from diseased patients. Exposure to cold, bad food, through nervous influence and by direct irritation of the mucous membrane, may produce individual cases of the catarrhal forms. In army life this disease is quite frequent and is described under the name of dysentery. In crowded places, as in the army or in prison, epidemics will arise and frequently the whole mass of humanity will be taken down with this dreadful disease.

There are many micro-organisms found in the discharges from these patients. One is the amoeba dysenteriae, claimed by some to be the main cause, but it is doubtful if any one organism can be pointed out as the specific cause of the trouble. It is a settled question now that some poison introduced into the system produces these gastro-intestinal troubles such as gastro-enteritis, entero-colitis, epidemic dysentery, etc.

We need not dwell on either particular nosological classification as the treatment is about the same in either one of the entities. The common symptoms met with in these disorders are about the same. They will commence with a light form of gastro-intestinal catarrh. After the stage of incubation which may last from a few hours to a few days, symptoms of dyspepsia and diarrhoea set in. There is anorexia, heartburn, nausea, vomiting, borborygmus, often pain in the abdomen and copious fluid discharges. In some cases there is violent griping and collicky pains with a sensation of depression. The patient in some cases is unable to leave the stool. The tenesmus is frightful, making the patient not only a misery to himself but to his friends as well. Often the patient will sit at stool hours at a time until he becomes so faint and weak that he cannot leave it without assistance. There is great depression in these cases. The constant nausea, with occasional vomiting, and tenesmus causes great prostration.

During the winter of 1901-1902 an epidemic started in Michigan City, Indiana. At that time the writer was physician of the Indiana State Prison. Hundreds of cases developed; the inmates of the prison were infected as well as some of the officers of the institution. The general suffering was great indeed. In these cases all of the symptoms were those of a case of poisoning. The skin is hot and dry, the tongue is heavily coated, the face soon wears an anxious expression, the abdomen becomes distended; there are constant discharges of mucous, blood and pus, some cases would go to stool as high as two hundred times in twenty-four hours. In the worst cases the patient would sit or lie upon the bed most of the day not caring apparently whether he lived or not. The first discharges, as a rule, in these cases were like the white of an egg; later on they would be tinged with blood. The general symptoms were alarming. At times a person would be tempted to call the case cholera. In some cases there would be fever and in others there would be none. To give some idea of the cases I will cite one or two.

John S., age 32, white, was taken sick with a discharge of mucous from the bowels. He had tenesmus, griping pains, went to stool one hundred and twenty times the first twenty-four hours. He was given the ordinary treatment without any relief whatever. After the first forty-eight hours his bowels were washed out with a solution of hot water and Glyco-Thymoline two ounces to each pint of water. He was given a few doses of Dover's powder and a half a tablespoonful of Glyco-Thymoline in a little water every two hours. In forty-eight hours from the beginning of this treatment he was up and around. The constant vomiting he had disappeared after the third dose of Glyco-Thymoline.

William C., age 24, white, had same symptoms as the other case with the exception of passing blood; was given same treatment with the addition of El. Ext. of Ipecac. He recovered in thirty-six hours.

Over eighty cases were treated with the hot water and Glyco-Thymoline and every case recovered in from twenty-four to forty-eight hours.

The old treatment with calomel, opium, salol, etc., was a failure. The antiseptic and alkaline treatment was a success. After one enema of the solution of hot water and Glyco-Thymoline the patients would often lie down and rest for some time. In these cases where there was such an extreme amount of decomposition going on in the gastro-intestinal canal, only the most heroic medication would give relief. In some cases we would pass a

Langdon colon tube high up in the bowel and wash it out with the hot water and Glyco-Thymoline, besides giving a tablespoonful of the medicine internally. Some of the cases that were treated early never reached the serious stage but recovered after having the symptoms of a mild attack of gastro-enteritis. There is no question but that an enema of hot water with the Glyco-Thymoline solution will abort these cases.

The direct and only indication in these cases of intestinal poison is to get rid of the intestinal accumulations and introduce into the canal an alkaline antiseptic that will destroy the bacterial infection and neutralize the excess of acid, also give the medicine by the stomach in order to keep it in an antiseptic condition.

When the gastro-intestinal canal is in a normal condition the food that passes from the stomach to the bowel is acid, the fluids in the intestine neutralize the excess of acid and it becomes alkaline. In these cases of gastro-intestinal irritation the fluids of the intestine frequently fail to do their duty and the excess of acid starts up and encourages the irritation, so by introducing into the canal an alkaline substance like Glyco-Thymoline, we overcome the excess of acid and as it is also antiseptic, we stop decomposition.

The clinical value of this treatment cannot be estimated until it is given a trial. The treatment must be heroic and the remedy should be given in large doses. It is impossible to overestimate the value of this treatment in cleansing, disinfecting and constringing the foul, acid, flabby surface of the whole seat of the disease.

Of all the remedies which have been recommended in the relief of these intestinal irritations none come any way near equalling the treatment with hot water and Glyco-Thymoline as enemas and this remedy given by the stomach.

Hegas has shown how the whole tract of the large intestine can be thoroughly inundated and flushed with a rubber tube and funnel, so let us take advantage of this system and introduce our antiseptic solution and not only cure, but frequently abort these grave maladies.

The successful treatment of these troubles in any form depends upon a recognition of the fact that the disease is local as to its seat and specific as to its cause. Taking all of these things into consideration, the best thing that can be done is to irrigate with Glyco-Thymoline (Kress), an alkaline and antiseptic wash and also give it internally.

Anodynes only relieve effects but they do not relieve the cause. This treatment removes the cause and recovery must and will follow. Clinical evidence is sure evidence. He who doubts should test the treatment and be convinced that it does cure these diseases of the gastro-intestinal tract.

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BOOK REVIEWS.

American Edition of Nothnagel's Practice.—Tuberculosis and Acute General Miliary Tuberculosis. By Dr. G. Cornet of Berlin. Edited, with additions, by Walter B. James, M. D., Professor of the Practice of Medicine in the College of Physicians and Surgeons (Columbia University), New York. Handsome octavo volume of 806 pages. Philadelphia, New York, London: W. B. Saunders & Company, 1904. Cloth, $5.00 net; Half Morocco, $6.00 net.

This is the seventh volume to be issued in Saunders' American Edition of Nothnagel's Practice, and the remaining four volumes are in active preparation for early publication.

The American edition of Professor Cornet's exhaustive work appears at a time when the subject of tuberculosis has a peculiar claim upon the attention of mankind. Within a few years both professional and general public interest in the disease has taken enormous strides. In almost every civilized community societies for the prevention of tuberculosis are being organized, and these are composed not only of physicians but of laymen, while governments themselves are taking an active part in the movement. Under these circumstances, and at this time, the work is of interest to practitioners, for there is no other treatise which gives an equally clear and comprehensive view of this subject.

The article on Acute General Miliary Tuberculosis has been admirably written and gives a thoroughly clear understanding of this disease.

The importance of the Chemistry of the Tubercle Bacillus and its bearing upon Immunity have warranted a thorough treatment of this subject.

The work is complete and logically arranged, and the editor has made additions where necessary to bring it down to date.

Atlas and Epitome of Otology.—By Gustav Bruhl, M. D., of Berlin, with the collaboration of Professor Dr. A. Politzer, of Vienna. Edited, with additions, by S. MacCuen Smith, M. D., Clinical Professor of Otology, Jefferson Medical College, Philadelphia. With 244 Colored figures on 39 lithographic plates, 99 text illustrations, and

292 pages of text. Philadelphia and London: W. B. Saunders & Co., 1902. Cloth, $3.00 net.

This excellent volume, the first attempt, to our knowledge, to supply in English an illustrated clinical handbook to act as a worthy substitute for personal instruction in a specialized clinic, is, indeed, a magnificent addition to Saunders' Series of Medical Hand-Atlases.

The work is both didactic and clinical in its teaching, the latter aspect being especially adapted to the student's wants. A special and highly commendable feature is the very complete exposition of the minute anatomy of the ear, a working knowledge of which is so essential to an intelligent conception of the science of otology. As in all this series of atlases, the illustrations are beautifully executed in colors, and illuminate the text in a singularly lucid manner, portraying pathologic changes with such striking exactness that the student should receive a deeper and more lasting impression than the most elaborate description could produce. Further, the association of Professor Politzer in the preparation of the work, and the use of so many valuable specimens from his notably rich collection, especially enhance the value of the treatise. The work contains everything of importance in the elementary study of otology, and, without question, is a most valuable contribution to medical literature.

SELECTION.

THE INCREASE IN CANCER.

(*Editorial in New York Tribune*, April 16, 1904.)

Dr. Roswell Park of Buffalo, while delivering an address in Berlin this week, made an allusion to the prevalence of cancer which has either been misunderstood or inaccurately reported. He is represented as having said that cancer is almost as common in the United States as tuberculosis. This is a matter to which Dr. Park has given much attention for years, and he has made a special study of the conditions in New York State, which is supposed to lie in what is called the "cancer belt." Hence, it does not seem credible that he intended to convey the impression which one would derive from the language imputed to him.

It appears from the statistics of the State Board of Health for 1903, for instance, that the total number of deaths last year from cancer in New York was 5,456, while the mortality was considerably greater from each of seven other diseases, not counting accidents, violence and unclassified maladies. "Acute respiratory disorders," among which pneumonia doubtless holds the chief place, are credited with 17,339 deaths, and tuberculosis with 13,194. From the same source of information, however, one learns that there has been comparatively little fluctuation of late in the havoc from most of these causes, but that cancer is on the increase.

Deaths in 1903 due to cancer exceeded those of 1902 by nearly 500, and exceeded the average for the previous five years by 684. These figures show, therefore, that the rise in mortality from cancer, to which Dr. Park called attention in the pages of the medical papers five years ago, still continues. He then predicted that if it was maintained long enough cancer would rival tuberculosis. That time has not yet arrived, but the steady increase for more than a decade certainly justifies great uneasiness. After all, it is the ratio that tells the story.

Corroborative testimony was offered by Dr. Frank G. Clemow, in his Geography of Disease, which appeared last year. He was disposed to think that to a limited extent, pos-

sibly, the gain was apparent rather than real. In some measure it might perhaps be attributed to differences in diagnosis and registration between earlier and later periods, but it did not seem probable to him that any such explanation would fully account for the increase. The phenomenon has been observed in several European countries. It was especially notable in the United Kingdom. Still, the most conspicuous rise, he declared, was on this side of the Atlantic. As to the main fact, therefore, there can be little question. It has been recognized too long and too widely to admit of mistake.

Medical men have at least two reasons for regarding this situation with peculiar dismay. No altogether satisfactory method of treatment for cancer has yet been found. In a few cases Rontgen rays have afforded relief. Perhaps radium will some day prove helpful. Surgery is the most efficacious resource, but it is not always practicable, nor does it invariably preclude a return of the trouble. The wisest and most skilful members of the profession are almost powerless to fight cancer. Again, the exact cause of this disease—or, to speak more accurately, this group of diseases—has not yet been determined. Every few months the alleged discovery of the cancer germ is announced. The men who have been engaged in the hunt and who have thought that they had achieved success have often had a high standing. One of them, Dr. Gaylord, is a fellow townsman of Dr. Park. Another is Dr. Schmidt, one of the advisers of the Emperor of Germany. In none of these instances, however, has the demonstration been complete and convincing. An organism may be found which is almost always an accompaniment of the diseased tissue under examination. It will not meet all the logical requirements prescribed long ago by Koch, though, unless it be separated from the human system, independently cultivated and then employed to transmit disease to a healthy animal. As final proof of that kind is still lacking, it is too soon to place confidence in any of these claims. Eventually, it is reasonable to hope, the mysteries of cancer will be revealed and an effective method of warfare will be found, but to-day the doctors are sadly in the dark.—*Buffalo Med. Jour.*

GOOD AND SEASONABLE.

A word about some remedial preparations which the busy practitioner will find always useful, particularly at this season of the year, will no doubt be of interest. First, we will mention the old time-tried antikamnia and salol tablet, so useful during the hot weather, when even the "grown folks" load up their stomachs with the first offerings of the season. Hare says: "Salol renders the intestinal canal antiseptic and is the most valued drug in intestinal affections." The anodyne properties of antikamnia in connection with salol render this tablet very useful in dysentery, indigestion, cholera morbus, diarrhoea, colic, and all conditions due to intestinal fermentation. Then the "triple alliance" remedy so well and favorably known by its self explanatory title, namely: "Laxative Antikamnia and Quinine Tablets." To reduce fever, quiet pain, and at the same time administer a gentle tonic-laxative, is to accomplish a great deal with a single tablet. Among the many diseases and affections which call for such a combination, we might mention coryza, coughs and summer colds, chills and fever, biliousness, dengue and malaria with their general discomfort and great debility.

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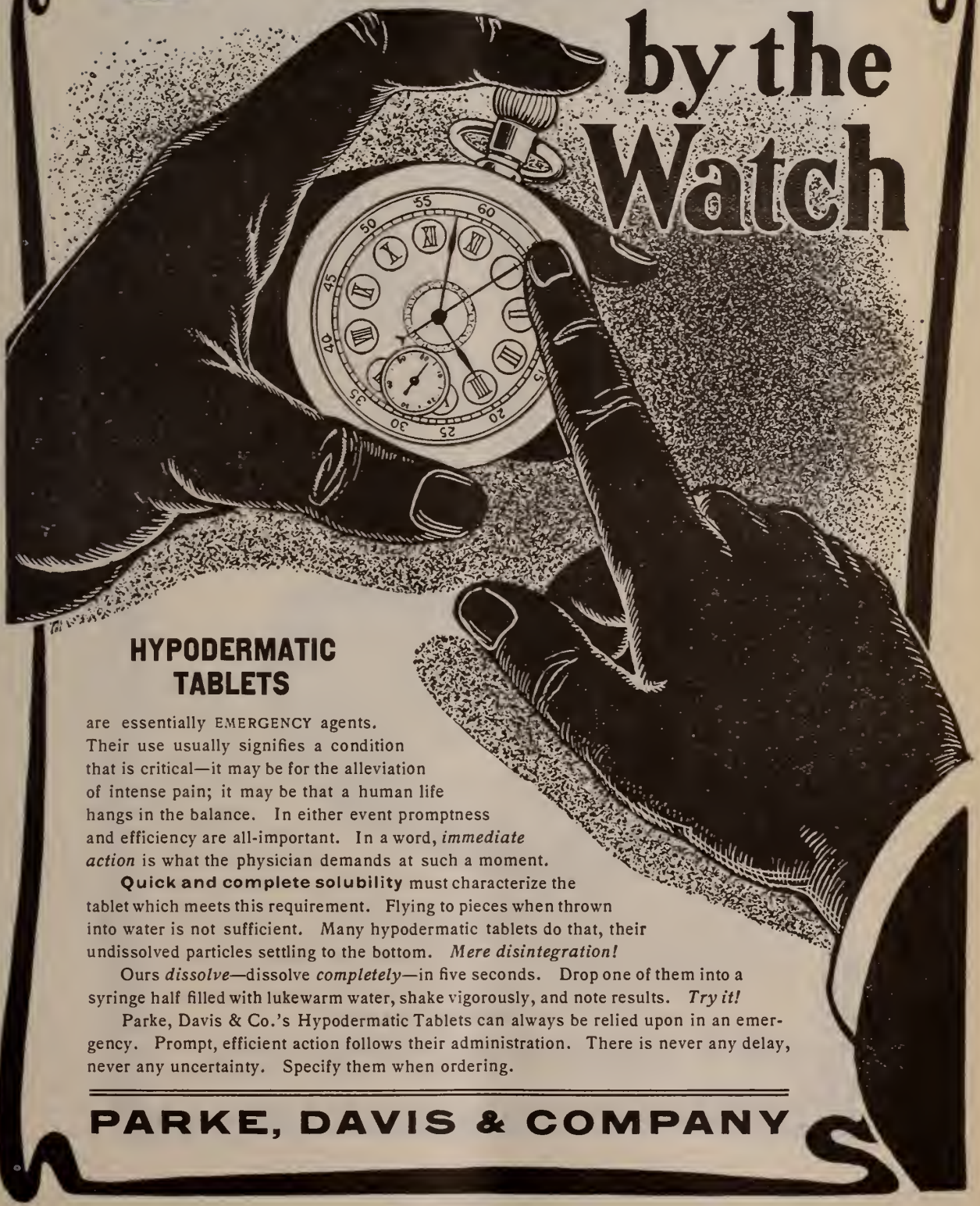

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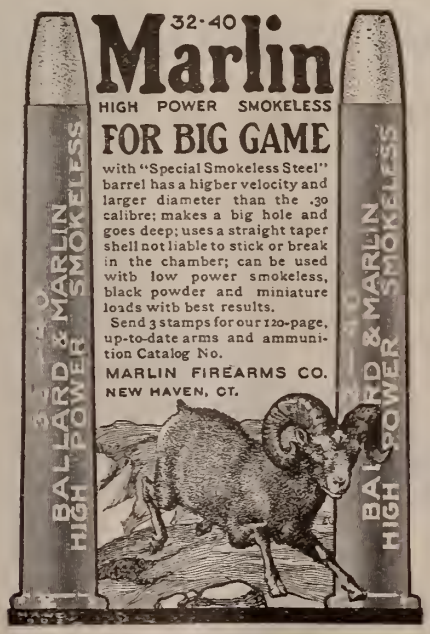

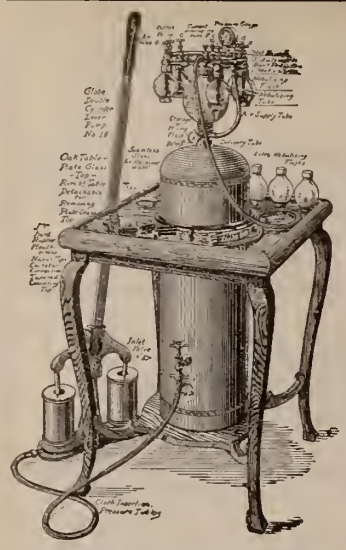

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57-59 Prince Street, New York

THE

Vermont Medical Monthly

Official Organ Vermont State Medical Society.

Vol. x. No. 7. Whole No. 115. | Burlington, Vt., July 25, 1904. | $1 per year. Single copies, 15 cts.

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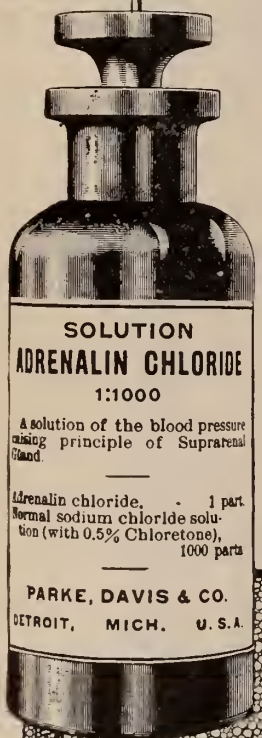

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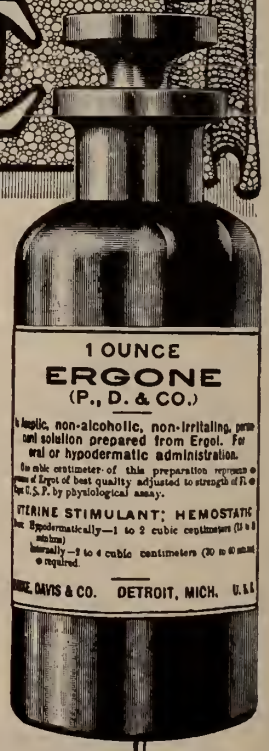

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Vol. X. July 25, 1904. No. 7.

ORIGINAL ARTICLES.

WHY IS THE PROFESSION OF KILLING MORE GENERALLY HONORED THAN THAT OF SAVING LIFE?*

By Henry Janes, M. D., Waterbury.

"Is it lawful * * * to do good or to do harm—to save a life or to destroy it?"

Christ, when He put this question to the Pharisees, who were seeking an accusation against Him for practicing the healing art on the Sabbath day, evidently considered the answer too unmistakable to need definite expression.

If this assumption was just, why is it that in the bestowal of public honors, men who unhesitatingly trample on all law, human or divine and who make killing a profession, receive an allotment so much greater than all others? Why is the healing profession so persistently ignored? In the New York Hall of Fame as yet no man who devoted himself to saving the lives of others, or relieving their physical sufferings, is mentioned.

In most European countries, Germany being perhaps the most notable example, even at the present day, the most active and serviceable young men are forced from their productive employments and placed under the despotism of brutal officers (who are encouraged by their ruler to domineer over the civilians who pay all the bills), to be trained like fighting cocks, or the gladiators of ancient Rome, for the business of killing and mutilating other men in the most fiendish manner, and if not directly encouraged in, are seldom punished for, the commission of every crime in the calendar on the peaceful inhabitants of a country unfriendly to their ruler. The money and the lives of the common people are squandered for no dispute or interest of their own, but merely for the gratification of the gigantic self-conceit of the ruler who habitually speaks of them as his army, as if they owed him personal allegiance, he having individually paid for them and owning them body and soul.

An army marching past in well aligned platoons, with colors floating, bands playing, the men with freshly cleaned accoutrements, arms polished and shining in the sunlight, the officers ornate in their gorgeous uniforms, with glittering but worse than useless swords and epaulets, affords a costly pageant well calculated to enthuse an unthinking populace. But come with me over the field, after a hotly contested battle, or still better, because the attention is not distracted by the hosts of mangled corpses of the men more mercifully killed outright, help me to receive the wounded at the field hospital during and after the battle, as they are brought on the long lines of stretchers and ambulances. This man in the deep coma has concussion of the brain; see the pitiful expression of this boy with both eyes shot out; the horrible appearance of this officer whose nose, jaw and almost whole face has been torn off by a shell; here is a boy with both legs torn off by a round shot; another with both arms completely shattered; this one with the distressed breathing and frothy blood oozing from mouth and nose is wounded in the lungs; observe the ghastly pallor and faintness of the man with blood-soaked clothes, he

* Read at the 90th Annual Meeting of the Vermont State Medical Society.

is dying of hemorrhage; notice the apathetic dullness of some and the agonizing pain of others of these poor filth-covered creatures, shot through the abdomen. Look on the living and sentient head joined to the lifeless body of this miserable wretch shot through the spine; here come some wounded soldiers whom the stretcher-bearers were unable to find till more than a day after the battle had ended. Their limbs are gangrenous and putrescent in consequence of injury to the important vessels and nerves. The last to arrive is the long line of ambulances filled with the wounded, who have been picked up on the distant parts of the field. They have been lying in the woods and ambulances for more than a week, and the train, in order to avoid the enemies' scouting parties, has been obliged to take a circuitous route. Almost every wound is filled with crawling maggots and the men with fractures, especially of the lower extremities, have suffered untold tortures during their long journey over the rough by-ways. All these are familiar sights at the field hospitals, after great battles, but we must stay for months in the hospitals, working through the day and a good part of the night in the illy supplied wards, dressing the wounds with our own hands, in order to get a proper appreciation of war's miseries. We must become thoroughly acquainted with the accidents which are of daily occurrence in the large hospitals crowded with gunshot wounds, such as secondary hemorrhages, occurring frequently at night, and necessitating the ligation by dim candle-light of deep arteries imbedded in tissues sodden by inflammation or infiltrated with blood, till every vestige of landmark is obliterated. The tetanic case, the victim of which with agonized expression and covered with cold perspiration, but with unclouded brain, watches the painful spasms, brought on by the least movement or emotional excitement, slowly increase in severity until death comes by exhaustion, or more mercifully by suffocation caused by a sudden spasm of the muscles of respiration. The septicæmic cases, with the delirium and typhoid appearance caused by reabsorption into the circulation of the chemical products of the decomposing fluids, in deep wounds and fractures, often necessitating operations almost as severe as amputations; for the cleansing of foul cavities or removal of dead bone; the sudden ague-like chills of pyemia, followed almost instantly by a fever of six or seven degrees, with resulting infective abscesses in the lungs, liver and perhaps other organs. The acute infecting inflammations of the bone and marrow, with the softened periosteum separating with its attached muscles from the shaft of the bone, which then protrudes several inches beyond the retracted soft parts. Then the patient with the stump nearly or quite healed, suddenly becoming delirious from blood poisoning, the granulations and adhesions breaking down so that the flaps fall apart and again expose the bone; also the stump of the man early infected, in which perhaps there is not the least attempt at union, and the lingering death of the man whose vitality is slowly sapped by profuse suppuration from deep and irremedial wounds. The hospital gangrene, so rapidly infective, which if unchecked will soon convert the merest scratch or prick into a smeary, stinking ulcer, perhaps as large as a dinner plate; resorption of the callus of united bones, as a consequence of pyemia; bending and shortening of fractured bones long after they have united; chronic inflammation of bone and marrow, causing death of more or less of the shaft and often curable only by the removal of the entire affected bone; neuralgias and burning, glossy skin of hands or feet, whose nerves have been injured but not severed; paralyses, aphasias, epilepsias, insanities or dementias in consequence of brain injuries, etc., etc. Can any but fiends incarnate look

on such scenes unmoved and acknowledge that they caused them?

The army surgeon sees little glory in war. He knows that in by far the greater proportion of cases wars are brought on for reasons which do not in the least concern one in a thousand of those who must bear their burdens and suffer their miseries. The interested parties get others to draw their chestnuts from the fire and generally keep out of the way of harm themselves. They are the ones who ring the changes on the time-honored flap-doodle about national honor whenever a half-nationalized, swaggering diplomatist metaphorically gets his face slapped for meddling with what is none of his business, or of the necessity for one of the strongest nations on earth to annex and fortify some island two or three thousand miles away, in order to keep its own compact territory from being invaded by a much smaller nation on the other side of the globe.

The same parties who are ready to move heaven and earth to save from merited punishment the worthless ruffian who has been condemned to death for a brutal murder, after a long and careful trial, before humane and impartial judges, are often eager to get their young and useful countrymen into positions in which thousands of them must sacrifice their lives or endure mutilations worse than death, in carrying out the orders made on the spur of the moment by a commander, who, lacking the cold-blooded selfishness and fiendish brutality of a Bonaparte, is perhaps obliged to partially obfuscate his brain by stimulants before he can nerve himself to assume the responsibility for the inevitable misery which he knows must ensue from a battle.

It is the surgeon's province to alleviate as much as possible the sufferings caused by disease in camp, or wounds in battle. If his post is with his regiment during an engagement, he may for a few minutes participate in the excitement of the fight; but the wounded, picked up mangled and helpless, covered with blood and filth, must soon absorb all his attention to the exclusion of any thought for the details of the battle. If he gives his whole attention to his legitimate duty, he is never mentioned in the despatches from the battle-field; no matter how great his services, or how much he risks his own life to save the lives of others; and he gets no promotion above the rank of major while actively engaged in the field, even if he has under him a major-general's command.

Is the profession of killing men or mangling them so that their lives are ever after burdens to themselves and to the community, so much more noble than that of curing and restoring them to usefulness, that all the honors should be given to the former and none to the latter? Does not the surgeon serve his country as effectively and honorably, and humanity vastly more, by preserving the lives of its citizens, than the line officer does by inciting the men under him to maim and kill its enemies? An ignorant brute can learn in a few minutes how to kill or wound somebody, but an intelligent and educated man must give long years to study and practice before he can get the science and skill necessary for restoring to usefulness the sick and severely wounded.

A recent writer who has investigated the subject, has found that of the men of the so-called learned professions who have attained eminence in this country, the proportion of university graduates was much larger among physicians than among clergymen or lawyers. In our Civil War the medical officers were almost the only ones among the volunteers who had had any considerable experience or preliminary training in their duties, and they alone before receiving their commissions were subjected to rigorous examinations in order to test their professional skill; yet they con-

stantly saw men, inexperienced, with fewer brains, less patriotism, courage or devotion to duty, appointed to higher rank.

No other profession or class does anywhere near so much work for charity as physicians, few of those practicing in this State giving less than one-fourth or one-third their services and medicines, besides a very considerable proportion of their available cash to the poor. In my neighborhood there are very few physicians past fifty years of age who, in the sense in which Christ valued the widows' mites which were cast into the treasury, have not given more for charity than all the Astors, Carnegies, Rockefellers or Vanderbilts in the country. The former may have given freely of such as they had, and to their own detriment, while the latter have endowed their libraries, hospitals and colleges merely from the superfluity which they could not possibly spend for their personal gratification. The Maclure type of general practitioner is not peculiar to Drumtochty; it is found all over the country. Nowadays the specimens are better groomed, the saddle and the saddle-bags have been discarded for the light buggy and neat medicine case. The instruments are more highly polished, and since the days of tablet triturates and gelatine coated pills, the office is less redolent of the mingled odors of camphor, castor, assafœtida, picra, crude opium, etc., etc., but the doctor, just as freely as of old, sacrifices his own comfort for the relief of his patient, and as in former times, he is still liable on returning from a visit to some virulently infectious case, at the risk of his own life and ruination of his business, to be driven away from home with threats of lynching by an angry mob. Almost any school boy or girl can tell about the famous, foolish and futile charge of the Light Brigade, but how few grown persons know anything of the bands of physicians who have so often and so unflinchingly encountered a much greater proportional mortality in their ranks, while fighting disease in epidemics of typhus fever, yellow fever, cholera, plague, etc. Because they have done this unostentatiously and solely for the benefit, not the injury of humanity, they are unhonored and unsung.

A higher order of executive talent is required of the surgeon in charge of a large field hospital after a great battle than of the general in command of a division or corps. In the latter case every detail of the organization is complete down to the corporal's squad; the commissary and quartermaster's departments are in working order and there are only sound men, each able to take care of himself, to be considered. But the surgeon is liable, almost without notice, to have thrown upon his care hundreds, or perhaps thousands, of helpless wounded men, who must not only be fed and sheltered, but whose wounds must be attended to with the highest professional skill and at once, for it makes a vast difference in results whether the severer operations after a battle are done within a day or two, or later. Notwithstanding this, it was not until the latter part of the second year of our Civil War that a regimental surgeon could depend upon any assistants but his hospital steward and ward master (and during an engagement only, the musicians), except men unfit to serve in the ranks on account of some disability. He was not allowed to retain under his command more men than were actually needed for the care of the sick in hospital, so at every battle it was necessary to make an almost complete reorganization and educate a new set of men in their duties. These men being detailed by their company commanders, were generally strangers to the surgeon, and he, of course, was unable to tell where each one could be made the most efficient, until after trial, which had to be made during the bustle and confusion of battle.

There was not infrequently considerable

friction between the medical and other departments of a regiment. A company commander, if disposed to be tyrannical, did not always like to have the surgeon take a man from under his command and order him into the hospital, or what was more frequently the case, to return to duty a malingerer who had succeeded in shirking his work by arousing the sympathy of his comrades for some feigned disease.

The surgeon was generally most urgent about his transportation just at the time when the quartermaster was driven to his wit's end to move the ammunition and baggage of the rest of the regiment, and very likely the commissary who had issued rations for three or five days to the men in the companies just before they went into a fight, would in a few hours have to reissue more rations to many of these same men, on the surgeon's requisition, they having been wounded and brought into hospital.

The officers of the other staff departments were no more exposed to danger than those in the medical department. After the editor of the Medical and Surgical History of the War has given a list of the surgeons killed in action, he remarks: "If the above sad mortuary record, proportionately larger than that of any other staff corps, is insufficient to correct the popular fallacy that in battle the post of the medical officer is one of comparative safety, that false impression may be removed by the following list of medical officers wounded in action," etc. During the war there were about two and one-half times as many deaths from disease as from wounds, consequently the surgeon while engaged in his ordinary duties, especially in times of epidemics, was in much more danger than the officers of the other departments. "The pestilence that walketh in darkness" is quite as much to be dreaded as the "destruction that wasteth at noon day," and it requires no more, nor no higher type of courage to go into battle, with the fighting fury excited to the highest pitch and surrounded by maddened comrades, than it does to go with an unclouded brain, calmly and alone to a day's work in a crowded typhus ward; and generally the danger is less in the former than in the latter case. In the fever wards, where I commenced practice nearly half a century ago, fourteen of my immediate predecessors had one after another taken the typhus from their patients, seven dying and sixteen of my successors took the same disease, eight dying. Of the physicians going to Norfolk from the North to assist in caring for the sick during the yellow fever epidemic of 1852, only about one-fifth got back alive. The result in a similar later epidemic at Memphis, Tenn., was about the same, but in none of these, or similar instances, has there ever been from the medical profession any lack of volunteers for this forlorn hope. Bonaparte received a great deal of praise for his courage when he visited for a few minutes the plague hospital at Jaffa. Was death any worse for him than for the surgeons who labored among the infected day after day without credit, and who would not obey his order to poison the sick left behind on the retreat?

A late writer of army stories makes his hero, as his crowning act of bravery, volunteer to go and help care for the sick in the small-pox hospital after the surgeons had appealed for help. He says: "But no officer would detail and force one of his veterans to go on such a duty as that, so a call was made for volunteers. Men who never flinched at Gettysburg or the Wilderness were willing to undertake all that again. They would cheerfully face the rebel flag, but not that horrible yellow flag up there above the pines. There was no honor or no glory there, nothing but a loathsome death." The writer has no word of commendation for the brave surgeons who, shunned by all their non-infected comrades, day after

day and alone fought the dread disease. People generally seem to expect members of the medical profession to cheerfully face dangers appalling to so-called fighting men and the members of every other profession.

A few years ago there died at San Francisco, in obscurity and almost poverty, a man who in the army never attained a higher rank than that of major, but whose services to the army and to humanity were of infinitely more importance than those of most of the so-styled fighting generals so highly honored since the war, and who was probably quite as often under fire, yet his death was almost unnoticed in the newspapers except in his immediate vicinity, and I don't suppose any considerable number of my hearers ever heard his name mentioned. This man was Dr. Jonathan Letterman, Medical Director of the Army of the Potomac from July, 1862, to January, 1864. To him we were indebted for the organization of an army medical department whose efficiency had never before been equalled. The medical officers of an army actively engaged in the field, who faithfully employ themselves in their most proper and pressing duties, i. e. attending to the sick and wounded, have little time for literary work, so in the history of the war Dr. Letterman, like many of the most valuable medical officers, makes much less show than some practically inefficient men who spent their energies mainly in writing elaborate reports for publication.

Immediately after assuming the directorship, Dr. Letterman prepared Special Order 147, which was issued by Gen. McClellan on the 2nd of August, 1862. Owing to the persistent opposition of the general-in-chief, Halleck, this was the first trial allowed of any plan calculated to give cohesion and independence to the medical department. Before that each surgeon had to get along as best he could, liable at any time to have his transportation cut down and hospital stores abandoned, consequently he was often censured for suffering which he was utterly powerless to alleviate. This order, of course, applied only to the Army of the Potomac. The surgeon-general had previously pointed out to the Secretary of War the necessity for a better organization of the medical department in all the armies, but without avail, on account of the objections of the then general-in-chief. He made another appeal as follows:

"Surgeon-General's Office,
Washington City, D. C., Sept. 7th, 1862.

Sir:—I have the honor to ask your attention to the frightful state of disorder existing in the arrangements for removing the wounded from the field of battle, the scarcity of ambulances, the want of organization, the drunkenness and incompetency of the drivers, the total absence of ambulance attendants, are now working their legitimate results—results which I feel I have no right to keep from the knowledge of the department. The whole system should be under the charge of the medical department. An ambulance corps should be organized and set in instant operation. I have already laid before you a plan for such an organization, which I think covers the whole ground, but which I am sorry to say does not meet with the approval of the general-in-chief. I am not wedded to it; I only ask that some system may be adopted by which the removal of the sick from the field of battle may be speedily accomplished, and the sufferings to which they are now subjected be in future, as far as possible avoided. Up to this date 600 wounded still remain on the battlefield in consequence of an insufficiency of ambulances and a want of proper system for their removal in the Army of Virginia. Many have died of starvation, many will die in consequence of exhaustion, and all have endured torments which might have been avoided. I ask you, that you will give me your aid in this matter, that you will interpose to prevent a recurrence of such consequences as have followed the recent battle, consequences which will inevitably ensue on the next important engagement if something is not done to obviate them.

I am, Sir, very respectfully your obedient servant, William A. Hammond,
Surg.-Gen. U. S. A."

This appeal, like the previous one, came to naught, on account of Gen. Halleck's determined opposition, which prevented the adoption of any general system until nearly a year and a half later, when Congress in March, 1864, passed an act establishing a general ambulance system, substantially the same as that instituted by Dr. Letterman in the Army of the Potomac.

From this time the ambulance service of an army, with transportation and men regularly detailed, efficient and thoroughly trained for the service, was placed under the command of the medical director and except in extraordinary emergencies, there was never any lack of supplies or transportation, and in fact they were considerably reduced, on account of increasing the unit from a regiment to a brigade. The wounded were taken from the field under fire, and placed in the hospitals with a minimum of suffering and often the operations after a battle would be completed in less time than under the old want of system it would have taken to get the wounded off the field.

Whether the organization instituted by Dr. Letterman is still kept up I am at present unable to say, but if the newspaper criticisms during the Spanish-American war were just, it has materially lost in efficiency, probably being hamstrung by its dependence on the other departments. I learned very early in the Civil War that the sick had no rights which some of the officials outside of the medical department felt bound to respect, and that only the surgeon who knew his rights and the rights of the sick men under him, and "knowing, dared to maintain," could get along without repeatedly being hindered in the performance of his duties by some pert official who apparently out of pure cussedness would make as much trouble as possible, even when he knew that the surgeon must, under the most favorable circumstances, work day and night in order to fulfil his obligations to the men under his care.

We have tried to show that physicians are, as a rule, better educated than the members of the other so-called learned professions; that they are much more charitable, devoting a larger proportion of their labors to benevolence than any or all other professions; that they are more exposed to danger and need a higher type of courage than is needed in any other profession, not excepting that of arms. Why, then, are they so generally forgotten in the distribution of honors and preferments? The physician in his practice cannot make use of the services of others to any great extent; he must work alone and in seclusion, never, or almost never, acting in a professional capacity before the public. His work is quiet and unobtrusive and except in rare instances, professional etiquette prohibits him from discussing it before a non-professional audience. If the lawyer gets his client acquitted by a plausible plea in the crowded court room, the clergyman stirs his congregation by a brilliant address, or the soldier does an act of unusual bravery, he immediately becomes renowned, but the physician in the quietude of the hospital or the sick chamber, may restore to health and usefulness scores of men and women without the facts becoming known to the general public at all. The members of other professions may blow their own horns until they crack, but physicians, bound down by their strict code of ethics, must sit in silence and not even give the faintest toot. During my army service it was often my duty to undertake myself, and assign to other surgeons disagreeable and dangerous tasks, but in only one instance did I ever know of any shirking by a member of our profession. This is more than can be said of any other department of the service, yet in all the army reunions which I have attended since the close of the war, I never but once have heard any

sentiment expressed to indicate that the army had any medical department.

It has so long been considered beneath the dignity of the physician to mix much in politics or in any way advertise himself, that the political rings consider him a negligible quantity and he is generally ignored in appointments to places of honor or profit, even when he alone has any knowledge of their requirements. He is, however, often asked to take a subordinate position and do the expert work for which some ignorant politician with a pull, who knows nothing of the matter, draws the pay and the credit. The value of insane asylums, hospitals, coroner's offices and boards of health depends entirely on the specialized knowledge of physicians, yet they are as often as not left off the boards of trustees, and paid positions. A person's services are seldom valued at a higher rate than his own estimate of their worth, and probably it would be better for the profession and the public, if educated physicians would refuse positions on the visiting staffs of hospitals, unless educated medical men constituted a working majority of the boards of trustees. Under the present conditions as to rank and promotion, a high-minded, educated physician, and he must be thoroughly educated in order to pass the examinations, can hardly take a commission in the army or navy without a certain loss of respect for himself and for his profession. It was General Wood's training as a physician which gave the greater part of the value to his services in Cuba, i. e. the initiation and enforcement of proper sanitation. If he had remained in the medical department of the army, it is more than probable that he would never have attained a rank higher than that of major. Of course, when his friend Roosevelt goes out of power, his splendid executive abilities will go for naught. A certain army clique will see that he gets no important position wanted by a West Pointer, no matter how incompetent, if he has a prior commission.

Charity is a most praiseworthy quality, theoretically, but it should not be bestowed so freely as to pauperize its recipients or impoverish the giver. Do not physicians, as a class, carry their altruism to an absurd extent by doing so much charity work, often for dead beats, that they leave their families in want when they die? Or if they escape the dangers incident to their profession, do they as a rule accumulate enough of this world's goods to enable them to enjoy a comfortable leisure in old age? I never knew a physician who became wealthy by the practice of his profession alone, and have seldom known of a physician's estate which settled for anywhere near as much as its estimated value before his death. The man who must get his living and support his family entirely by his own personal exertions, and who does so much for charity that his net income barely suffices for his modest and pressing wants, cannot leave bequests for public or charitable purposes which make much show in comparison with the ostentatious gifts sometimes made by our multi-millionaires, whose riches have been acquired by the ruin of their business rivals.

Have physicians as a class given sufficient attention to their civic duties? Should they not use their influence to a greater extent in practical politics? Without neglecting their scientific studies, could they not train themselves more thoroughly in public speaking, and writing for the secular press? Would it not be better if they should, by united effort, make themselves as much felt in municipal, state and national governments as the lawyers, who although fewer in number, less thoroughly educated and with less general intelligence, have so managed as to almost completely control all our important legislation?

If the larger proportion of our legislators were intelligent, high-minded men, scientifically trained and accustomed to think for them-

selves, the corrupt rings of "practical politicians" and lobbyists would be shorn of the greater part of their power, and it is probable that our statutes would be more wisely conceived, logically thought out and so clearly expressed that Supreme Courts would have no difficulty in agreeing as to their meaning and constitutionality.

In old times when rulers maintained their authority by force, the leaders of their fighters who were most active and unscrupulous in carrying out orders, no matter how diabolical, or who were most successful in their raids, were rewarded with titles and offices of profit. Even in comparatively modern times, those hustlers, Hawkins, Drake and Morgan, leaders of gangs of slave traders, cut-throats and pirates (contrasted with whom the bloodthirsty Ladrones might be called urbane gentlemen), on their return to England loaded with their booty, were knighted and given important public offices. Harvey, Hunter and Jenner received no titles, they had committed no gigantic robberies, the proceeds of which they could divide with the rulers. Instead of evil, they had only done good to the whole human race.

Notwithstanding our boasted enlightenment, the average modern man still retains enough of his pristine savagery to delight in killing some poor hunted animal and watching its dying agonies, or in so mangling it that it must die in prolonged torture or drag out a miserable existence, and this without the pretense of necessity, but wantonly, simply for sport. To the majority of the European nobility and a considerable portion of American toughs, the term sport generally means the killing or mangling of some decent beast or human being. Even to the present day some so-called "civilized" European kings try to imitate the butchers in the large packing houses, having droves of animals driven past them, and they are shameless enough to brag about the great numbers they have been able to slaughter and mangle under such conditions and with no risk to themselves. Many men and women who take pleasure in witnessing the tortures and struggles of a gamey fish which they have succeeded in hooking, have no vituperations severe enough for the human scientific physiologist or pathologist who makes a painless vivisection for the sake of benefiting his fellow creatures. They applaud the bestowal of honors and pecuniary rewards on the men who superintended the killings and robberies in Africa, but sneer on the titles which King Edward has seen fit to confer on physicians, for their distinguished services to humanity.

The physicians who worked out and demonstrated the truth of the theory of the spreading of yellow fever, typhoid and malarial fevers by insects, benefited our country, and the rest of the world, infinitely more than all the army and navy commanders of the Spanish-American and Philippine wars, and at much greater personal risk, but so far as I know, not one has received any public honor or even promotion in consequence, and it is pretty certain that none ever will, if the matter depends upon the officers in the other departments of the army for its initiation.

The following lines were written by a former neighbor with reference to the doctor of the old style who practiced in our town when I was a boy. The incident narrated will seem commonplace to my older hearers, but the lines are quoted as one of the extremely rare instances in which a poet has taken the trouble to commemorate any act of self-abnegation on the part of a physician:

THE VILLAGE DOCTOR.

By S. S. Luce.

I see him still, as erst of yore,
With furrowed cheek, and whitened brow;
Though he's been dead of years a score,
I see him stand before me now.

I seem to see his withered form
  Bestride his faithful white-faced mare,
With old brown saddle bags behind,
  Whose odor 'twas a grief to bear.

With chronic cough I hear him pass—
  He digs his steed with vigorous heel,
Whose callous sides, from daily thumps,
  Had long since lost the power to feel.

The constant grin upon his face—
  His light "te-he!" at human pain,
As oft he wrenched the offending tooth,
  Our memory will ever retain.

But deeply down within his breast,
  Beneath a mail like Milan steel,
'Twas said by those who knew him best,
  "The Doctor has a heart to feel."

'Twas in the old Green Mountain State,
  'Mid deep, dread winter's drifting snow,
The evening hour was waxing late,
  Some forty years or more ago.

We sat around the ample hearth,
  Where maple logs were blazing bright;
Glad songs arose, and social mirth,
  Upon that dismal winter night.

The storm-cloud hung on Mansfield's brow—
  The wind blew piercingly and chill;
Fierce through the leafless branches shrieked,
  And roared along the fir-clad hill.

The 'deep'ning snow, that all day long
  Had fallen silently and fast,
Now densely filled the frosty air,
  And piled in drifts before the blast.

And still we sat—the hours sped—
  The storm increased with fearful might;
"I hope," our tender mother said,
  "No one's abroad this dreadful night."

Our mother's voice had hardly ceased,
  When sudden through the opening door,
O'er drifts, the quaint old doctor sprung,
  And forward fell upon the floor.

His brow was crusted o'er with ice,
  And crisp and frozen was his cheek;
His limbs were paralyzed with cold;
  For once, the doctor could not speak.

With genial warmth and tender care,
  He soon revived, and said: "Come, Bill,
Be kind enough to get my mare,—
  I must reach Martin's, on the hill."

Then on again, o'er trackless snow,
  Against the biting winter blast,
Without the hope of worldly gain,
  Through mountain drifts the doctor passed.

Far up the winding mountain road,
  Through forest dark and blinding snow,
He reached the desolate abode,
  Of sickness, poverty and woe.

Long years have passed, yet oft I ask,
  As howls the tempest in its might,
While sitting by the evening fire,
  "What faithful doctor rides to-night?"

Yes, faithful; though full well I know
  The world is sparing of its praise;
And these self-sacrificing men
  But seldom tempt the poet's lays.

And yet, I trust, when at the last,
  They leave the world of human strife,
Like him "who loved his fellow-men,"
  Their names shall grace the "Book of Life."

TUBERCULOSIS DEPENDENT ON TOXAEMIC STATES.*

By T. D. Crothers, M. D., Hartford, Conn.

There are two facts which I wish to make prominent in this paper: One, that tuberculosis is dependent on states of toxaemia where the poisons are introduced from without; and, second, formed within the body. The other is that the bacillus of tuberculosis is only active and dangerous when the favoring soils and conditions are present for its development and growth.

The widespread diffusion of the germs of tuberculosis in the air, water, food, and surroundings, and wherever human beings congregate, has attracted attention and indicated the possibility of in some way destroying them and breaking up their habitat.

Thus, efforts to prevent the sputa from drying up and floating about in the air and so being inhaled again into the lungs, are carried out with more or less rigor in cities and towns. Wherever consumptives are found, the destruction of the sputa is considered a prophylactic measure of great importance.

* Read at the 90th Annual Meeting of the Vermont State Medical Society.

The dust-laden air of our Northern cities and the large number of tubercular patients seem to make it impossible to thoroughly destroy these germs which are so often carried in the clothing and must, of necessity, exist in the surroundings of consumptives. Notwithstanding the widespread diffusion of these germs comparatively few persons become infected with them.

A recent writer thinks that all persons in the Northern climates and in the consumptive belts, are exposed to this infection, and that sometime during their life these germs have effected a lodgment, but for various reasons have been thrown off and prevented from full development. He cites as proof the common experience of nearly every person who at some time has had severe attacks of bronchitis or debilities, with symptoms of disturbances of nutrition, high temperature and night sweats. After a time these symptoms disappear and long after, when such persons die, cicatrices in the lungs point to a previous deposit which has been overcome.

The records of post-mortem examinations in large hospitals show the same facts and indicate that tuberculosis has existed at some previous time, but had been checked. These and similar facts show conclusively that an early infection is not only possible but probable in many persons, but for some reason it is checked in its growth, and does not go on to full development.

The extreme fatality of tuberculosis has been diminishing, and there is a strong probability that more exact medical care and study will reduce it to a minimum and practically stamp out this "white plague." This change is due not so much to the medicine used as to the hygienic conditions and early recognition of the cause and the means for prevention. The removal of these causes and the cultivation of conditions which tend to increase and strengthen the vital forces are the directions in which preventive measures are leading.

One of the active causes which seem to precede and favor the growth of tuberculosis is faulty nutrition. Recently it has been recognized that failures of nutrition result in the formation of poisons which have a very marked influence over states of health and disease. Some facts of the physiology of food will make this more clear.

The fact is well established that the vigor of the body depends upon the nutrition which it receives. This in a general way must be albuminoid material, which is furnished by fish, meat and eggs, and which must constitute about one-fifth of the weight of the entire food. The hydrocarbons or fats required are about the same proportion, and the carbohydrates, containing starch and sugar, must form about three-fifths. These foods in about the same proportions are necessary for full health and vigor.

There will be some variation due to occupation and climate, but the general average will hold good. If too much of one and too little of another is used there will be disproportion and derangement, and if continued long enough, there must be degrees of starvation, and at all events, material introduced into the body, which cannot be used, and hence, will become waste; and, therefore, a source of infection. As a common example, the ordinary meals taken by persons who live in hotels and who travel will suggest this source of danger. The breakfast at such places includes meat and eggs in quantity over one-half albuminoid matter; and the dinner is the most hygienic of all. Such dinners consist of oysters or clams, with soup, fish and roast meat, and various kinds of entrees. These are served with vegetables and belong largely to the proteid foods, which should not exceed one-fifth of the amount taken. When there is added bread and the common dessert, the proteids may be brought down to a half, but not less. Then comes the carbohydrates, consisting of starch

and sugar in large quantities, which taken into a normal stomach will seriously impair the salivary digestion and destroy the power of the pancreatic juice.

The sugar and the starch in the dessert is injurious to all persons in whom there is a tendency to fermentation. In addition to these come sauces and condiments, which produce by overstimulation of the glands a large flow of gastric and other juices, so that the desire to eat is increased far beyond the ability to properly digest the food. The digestive glands are exhausted and cannot do the work required. Often, along with this excess, alcoholic beverages are used. Alcohols impair the digestive processes and lessen the function of the stomach and produce equally serious damage with that of the large proportion of proteids which can neither be broken up nor assimilated. Under the direction of ignorant cooks and caterers, foods are served to everyone, from childhood to old age, as if the peptic glands were disabled and in constant need of the most energetic stimulation.

Also, as if three-fifths or four-fifths of all food should be nitrogenous instead of one-fifth. As a result, the daily diet of all persons is irrational, unreasonable and disease-producing. The digestive functions suffer from toxaemia by decomposition of foods which cannot be used. Also from irritants taken as condiments and peptic stimulants. The secretory organs are overtaxed, the liver is burdened, the intestines and kidneys have an increased amount of secretory work to do, which is followed by early exhaustion.

These are the conditions which provoke many maladies, of which the term lithaemia, uricacidaemia, and other obscure forms of auto-intoxication describe. Probably no one substance in common use disturbs the nutrition and impairs the vigor of the body more positively than alcohol. Statistics of consumptives show that a very large proportion of these were spirit and beer drinkers in the early stages, with marked symptoms of dyspepsia, faulty nutrition and exhaustion.

Spirit and beer drinkers are practically starved, and suffer from poisoned states through derangement of nutrition and food taken which cannot be utilized. One author claims that 80 per cent. of all consumptives have used spirits or beer in excess before consumption appeared. From other inquiries it would appear that fully 50 per cent. of spirit and beer drinkers in Northern climates die of consumption. The relation between consumption and drinking is very close. The subsidence of the drink craze is often followed by acute tuberculosis and death. The use of spirits to excess not infrequently masks and covers up the symptoms of tuberculosis, but it is quite certain that it never cures the disease. Both spirit drinking and consumption seem to be dependent upon exhaustion, imperfect nutrition, and poisoned states. Alcohol seems to have a specific power to change and destroy the normal metabolism of the body.

All users of spirits suffer from the presence of waste products which accumulate in the system and seriously interfere with the normal metabolism essential to health. A great variety of elements sustain these theories and point out the specific causes with great exactness. A careful study of the history of many cases of tuberculosis shows a period of faulty nutrition from irregular habits of eating, bad foods badly cooked, associated with beer, spirits and other substances damaging to the vigor and health of the body.

Neurasthenic states are said to be the direct result of poisons which follow from imperfect nutrition and the formation of poisons which the system is unable to throw off, and along with the incessant mental strain is often neglect of proper bathing. The waste from mental and nervous activity is not eliminated and becomes a source of further exhaustion.

The kidneys and excretory organs are overworked in the effort to remove these poisons, and as a result Bright's disease, diabetes and other troubles follow.

The opposite of overwork, underwork, is also a prolific cause of the same general disturbance and faulty elimination. Irregular work with excessive strains and long periods of rest break up the normal rhythm of the body and provoke congestion and irritation.

One writer affirms that the excessive perspiration which is a common symptom of tuberculosis is simply an effort of nature to throw off the poison states which exist in the body; also that the nerve centres which control this function take on a paroxysmal period of activity in their efforts to eliminate the toxins. Practically it is found that great care is necessary to remove the poison from the body by washing and rubbing with dry towels, treating the patient very much in the same way that we remove the sputum and destroy it to prevent its being absorbed. In night sweats the change of underclothing and frequent bathing of the body secures the same thing.

These sources of disease are very active, and in some instances are beyond all question. The toxaemias which follow from these conditions are due to disturbances within the body. Where spirits are taken, the toxins seem to be introduced from without and form active sources of still further depressing conditions with enfeebled resisting powers of both the blood and nerve centres.

After the disease has been discovered, another source of danger comes from over-medication. Formerly spirits entered largely into all remedies; now they are found to be injurious. The depression and paralysis which follow from their use are a continual series of shocks to the nerve centres as well as introducing other toxins which disturb and further depress the vitality of the body. Remedies given for the purpose of destroying the bacteria, or chemical agents to throw off the germ growths are exceedingly doubtful in their practical value. It is evident that spirits conceal the progress of the disease by their anaesthetic action and encourage degenerative states favoring an early and sudden collapse. An exceedingly dangerous advice is not infrequently given by thoughtless physicians to use all the spirits possible. This is usually fatal. When the diagnosis is clear the conditions present should indicate the medical means most essential. First, the toxins formed in the body should be neutralized and removed. The danger of reinfection from the germs should be reduced to a minimum by removing the patient to some condition of surroundings where reinfection would be difficult.

Cod liver oil and emulsive mixtures may be in many cases most dangerous vehicles for the formation of toxins by further destroying the nutritive balance and increasing the waste. The old theory to feed the patient to excess, assumes a normal digestive capacity, which very rarely or never exists, and is a fallacy. Foods unfitted for the conditions present are far more dangerous than helpful, because they may impair and increase the conditions of faulty nutrition already existing. Foods containing a disproportion of the normal demands are also disturbing.

A study of the nutrition is the most essential thing in the early treatment or the possible prevention of consumption. Change of surroundings and conditions of life and living are not more important than the study of nutrition. Albuminous foods or carbohydrates in excess in a debilitated impaired digestion furnish new sources of infection and diminish the power of restoration. The modern trend of public opinion in the most advanced treatment is a recognition of these great principles of poisoning and their removal. Public hospitals in mountain regions and regulation of diet, removal of sources of reinfection and

auto-intoxication, are thoroughly preventive as well as curative.

Some of the conclusions I wish to make prominent are:

First—Tuberculosis in this climate follows auto-intoxication and poison states of the body.

Second—After tuberculosis has been established, numerous and complex toxaemias follow which not only intensify but increase the rapidity and fatality of the disease.

Third—Toxaemias following overwork, bad nutrition, and various other and allied causes are very common and can be prevented by a large knowledge of the more common hygienic measures essential to good health.

Fourth—Alcohol in all forms is a very potent cause of toxaemia, and the disease inebriety is very closely allied to tuberculosis. It not only precedes this disease but increases its growth by lessening the vigor of the body, and intensifying the degenerations which tuberculosis produces.

Fifth—Both of these diseases depend on toxaemias formed in the body by poisons introduced from without. With both are associated defective nutrition, defective elimination and faulty metabolism.

Sixth—In the treatment of tuberculosis, the most important danger to be corrected is that of poisons generated within the body. Also the elimination of these toxins, and the avoidance of all food and fluids which act as media and nidus for growth of the toxins and germs.

Seventh—Reinfection from the tuberculosis germ in the air, in the clothing, and from other sources can, in a large measure, be prevented by isolation and correction of the sources from which they spring.

Eighth—The restoration of the vigor and the lost resisting power of the organism can be obtained best from a study of nutrition and the application of such foods whose digestion can be perfect without damage from the waste of overfeeding.

Ninth—The scientific treatment of tuberculosis and its studies of nutrition and surroundings and the means and measures to break up the sources of poison which perpetuate the disease.

SPECIAL THERAPEUTIC ARTICLE.

CHOREA AND ANEMIA.

By Roshier W. Miller, M. D., Ph. G., Barton Heights, Va., Lecturer on Nervous and Mental Diseases, and Professor of Theory and Practice of Pharmacy, University College of Medicine, Richmond, Va.

In the etiology of chorea, nothing is noted relative to anemia. It is simply accounted as an accompanying symptom of the condition. Medical literature emphasizes the relation between rheumatism and chorea, with anemia as an important symptom. After observation of several cases, I am strongly of opinion, however, that anemia as a causative factor is worthy of investigation.

Anemia of toxic origin presents pathological conditions which favor the production of choreaic offections. It is true that simple anemia is, as a rule, of secondary origin, and, viewed in this light, it may be argued that if chorea arises, it is the result of the primary and not of the secondary conditions—thus agreeing with the admitted etiology. This argument, however, will not satisfactorily explain those cases of chorea which arise remotely from the primary condition, but recently from the secondary effects.

I submit three cases in which symptoms, treatment and recovery seem to intimate at

least a possible relation between anemia and chorea:

Case I—A female child of eight years gave a history of typhoid fever eight months prior to my visit. According to the mother's statement, the child had made a quick and good recovery, gaining rapidly in weight and exhibiting the energy of her former life. Six months later she became irritable and pale, with pain in her arms and legs, which condition was soon followed by gastric disorders and irregular spasms of the muscles of the face. Simple anemia was in evidence from objective and subjective symptoms alone, but was unquestioned in the light of the results obtained from blood examination—the red blood element being present to the extent of barely 3,000,000 red corpuscles per c. m.

This case was treated with two teaspoonfuls of pepto-mangan (Gude) and two drops of Fowler's solution, three times a day. After gastric symptoms had abated somewhat, two raw eggs per day were added to the diet. The patient was discharged in five weeks, completely recovered.

Case II.—A female child of ten years of age; gave history of malaria (a well-defined case of intermittent fever) one year previously. The pallid condition of the child induced the mother to solicit my aid. Upon examination, I found slight choreaic movements which had escaped the mother's eye, though she did admit that the child "could not sit very long at a time," and "was constantly working her fingers." The blood examination revealed no plasmodium. The red cells were reduced to 2,800,000 per c. m., with a proportionate decrease of hemoglobin.

Pepto-mangan (Gude) alone was employed in doses of two drams in a glass of milk three times a day. The blood examination four weeks later showed red cells present to the amount of 3,900,000 per c. m., at which time I dismissed the case completely recovered.

Case III.—A female child of thirteen years. Two months before my visit, the mother informed me, the child became peevish and pale, and was reproved at school for her inability to write neatly. She was taken from school, but she grew rapidly worse. Morning nausea, vomiting, headache and anorexia were her daily companions. I found her with pronounced histrionic spasm, with involvement of the upper and lower extremities. Hemic murmurs were plainly apparent, but no endocardial irritation could be determined. The blood count showed reduction in red cells to 2,100,000 per c. m. The hemoglobin was reduced to a degree greater than the red cells. A curious feature of the case was the morning nausea. Immediately upon awakening, she experienced nausea, which was followed by vomiting. I discovered, however, that this condition was superinduced by odors from the kitchen, and directed that a small sponge, moistened with creosote water, be placed over the nose and mouth before the preparation for breakfast began. The annoying symptom was promptly checked by this simple method. The anemia in this case may have been produced by malnutrition, but even this view is mere speculation.

The irritability of the stomach in this case was so pronounced that I did not deem it wise to give nourishment—not to speak of medicine—by the stomach. During the first four days rectal alimentation was employed. A nutritive enema, consisting of four ounces of peptonized milk and two drams of pepto-mangan (Gude) was given every six hours. Small amounts of peptonoids with creosote on ice were given by the stomach. Egg albumin was taken in all the water she drank. After four days, the stomach was tested with small amounts of milk and pepto-mangan (Gude). Beginning with four ounces of milk and one dram of pepto-mangan (Gude) every four hours, the amounts of each were rapidly increased, until after three days the patient was taking eight ounces of milk every two hours and four drams of pepto-mangan (Gude) three times a day. This diet, plus three raw eggs a day, together with the above treatment, was all that was employed for six weeks. The blood examination at this time showed a highly gratifying condition—the red cells being present to the extent of 4,100,000 per c. m. The bloom of youth once more tinted the cheek, and the shrine of St. Vitas lost a visitor.

From the *Virginia Medical Semi-Monthly*. May 13, 1904.

NEWS, NOTES AND ANNOUNCEMENTS.

Syrup of Iodide of Iron.—M. D. Hoge (*Virginia Medical Semi-Monthly*) affirms that pale, strumous-looking children with enlarged

cervical lymphatic nodules, associated with chronic catarrh of the throat or enlarged tonsils, are much benefited by the use of ten drops of this syrup after each meal. It acts here as an alterative, rapidly bringing about an absorption of the swollen lymphatics, and it enriches the blood.—*Carolina Medical Journal.*

Itching Piles.—Everybody knows the symptoms, if they have not felt them. Tr. nux vomica, rubbed up with butter of cocoa, twenty drops to the ounce, and used night and morning, will cure this condition. Five drops of the same in one-half glass of water, two teaspoonfuls every hour, will help along.—Samuel Eden, M. D., in *Med. Brief.*

Burlington and Chittenden County Clinical Society—The regular meeting was held at 162 College Street, Thursday, June 30, 1904, at 8.30 p. m. Following was the program: Hydatidiform Mole and Deciduoma Malignum—Dr. A. F. A. King.

A general discussion followed and refreshments were served at the close.

Urethral caruncle is being successfully treated by tampons of adrenalin solution on cotton, replaced three times a day. The solution used is 1 to 1,000, and those who have used it in severe cases say it compares favorably, in results, with operation.

Alcohol Compresses.—This method of treating local inflammatory processes, first advocated by Salzwedel, has been modified by Beschorren (Deutsche medicinische Wochenschrift), in order to avoid the smarting caused by the application. To the alcohol he adds an equal amount of a 1 per cent. solution of aluminum acetate, which raises the temperature of the fluid several degrees and makes it more soothing. The moistened gauze is applied directly over the inflamed area and a piece of rubber tissue, with more gauze over this. A perforated impermeable bandage is then wound around the parts.—*Medical News.*

Rutland County Medical and Surgical Society.—The annual meeting of the Rutland County Medical and Surgical Society was held at Brandon Inn, Brandon, Vt., Tuesday, July 12th, 1904, at 11.15 a. m.

PROGRAM.

1. Report of officers—Secretary, Treasurer, Auditor, Censors.
2. Election of new members.
3. Election of officers.
4. New business.
5. Home Treatment of Tuberculosis,
   President C. W. Peck
6. Discussion—General.
7. Arterio Sclerosis in its relations to diseases of the nervous system,
   Dr. Edward D. Fisher of New York City
8. Discussion—Drs. Crain and Hammond.
9. Manifestations of Arterio Sclerosis in the visual apparatus, and their relations to diseases of the nervous system,
   Dr. J. H. Woodward of New York City
10. Discussion—Dr. H. A. Francisco.

After the meeting a banquet was given by Dr. M. R. Crain of Rutland, in celebration of his 25th anniversary of the practice of medicine.

The anniversary chairman was Dr. H. L. Manchester. Dr. C. W. Peck of Brandon presided at the business and scientific session.

The Vermont Medical Monthly.

A JOURNAL OF REVIEW, REFORM AND PROGRESS IN THE MEDICAL SCIENCES.

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J. M. French, M. D. *Milford, Mass.*
F. S. Hutchinson, M. D. *Enosburg Falls, Vt.*

Burlington, Vt., July 25, 1904.

EDITORIAL.

SENSELESS ANTAGONISM.

We cannot help but feel that a good many of the difficulties of professional life are created by the constant effort of some people to attack and criticise their fellow-workers. Every medical man has felt the sting of unnecessary criticism, and too often our lives are really hampered by the fear of what some one will say about us.

Now, these remarks are not directed against friendly criticism, but especially against that excited by envy, spite or greed. Ninety per cent of all criticism has its inception in the lower passions; unworthy in its origin and oftentimes unmerited, but none the less injurious in its effects. No harmony can exist where its presence is felt and as a consequence no cause or calling can progress as well as it might without its influence.

Our thoughts have been directed in these channels by the recent attacks made by several of our contemporaries on the *Medical Brief* of St. Louis. We believe that such attacks deftat their purpose and carry us further away from the ideals of professional journalism. The *Medical Brief* is not perfect, and we doubt if its management makes any such claim. It may not measure up to our ideals in every particular, but it is a good journal and has done a great deal of good for a great many medical men. Its popularity shows that it has fulfilled its mission to an extent not enjoyed by many other publications, and we earnestly believe that it has done a great deal more good than harm for humanity and the medical profession. Who is there so perfect that he is privileged to assert that another's motives are all bad, or that they are less pure than his own? No one, and a person's only right is limited to doing different than what he deprecates in others. Vituperation and villification can never accomplish as much as precept in fighting an evil, and if a person seeks to show the error of any particular course, he cannot do better than to live and follow the opposite. If the *Brief* wishes to advance the interests of any proprietary remedy, it is its privilege; if we are opposed to proprietary remedies we can condemn them and avoid them, but if we wish to preserve harmony and avoid senseless antagonism we must stop here.

Frankly, we have no sympathy with the prejudices against proprietary remedies, for we know that modern therapeutics would not be where they are to-day but for proprietary preparations. Results are what we seek first of all, and it is no worse for the average practitioner to use a proprietary remedy whose exact formulas he does not know than for him to use many of the tinctures and extracts he does, of which he knows still less.

Idealism is all right, but before we fly too high, let us aim at better results in our own work. Our own success will mean a great deal more if it is not built on the fancied failings and shortcomings of others.

MEDICAL ABSTRACTS.

THE TREATMENT OF SUMMER DIARRHEA. —In the treatment of any form of diarrhea an accurate diagnosis must first be made. For convenience it is customary to classify diarrheas somewhat after this fashion: 1, Diarrhea of relaxation, or serous diarrhea, due to disordered innervation; 2, Crapulous or lienteric diarrhea, due to imperfect digestion; 3, Catarrhal diarrhea, acute or chronic; and 4, Ulcerative diarrhea, due to intestinal ulceration.

This classification is by no means perfect, as is shown by the multiplicity of terms applied to the various pathologic states characterized by diarrhea. Thus we have the terms acute inflammatory diarrhea, acute summer diarrhea, choleraic diarrhea, dysenteric diarrhea, nervous diarrhea, tuberculous diarrhea, etc. In each case the diagnosis is determined by the actual condition prevailing, of which the intestinal laxity is usually but a prominent symptom.

The question of treatment is one of the utmost importance. Without entering into a discussion of what soon proves to be a very broad subject, it may be worth our while to consider briefly the status of the antiseptic method of treating intestinal disorders, especially those caused by pathologic conditions; of which diarrhea is the chief symptom. Apart from well-directed efforts to clear the intestine of bacteria, reduce the temperature, sustain the vitality of the patient, regulate the diet, secure proper hygienic conditions, rest, and good care, the selection of the proper antiseptic agent demands the exercise of the physician's best judgment.

Whether or not it be possible to attain intestinal asepsis is of course a debatable question, but it is a well-established clinical fact that intestinal antiseptics do good and modify the course of enteric diseases of bacterial origin, notably typhoid fever, dysentery and summer diarrhea. However, there is a difference in the degree of efficiency of the various antiseptics, the utility of many being limited by the risk of untoward action from excessive dosage. In those cases of ileo-colitis caused by the bacillus of Shiga many of the serious symptoms are due to a mixed infection, to combat which prompt and vigorous measures are required.

The experiments of Novy and Freer (*Contributions to Medical Research*, p. 114) with benzoyl-acetyl-peroxide (Acetozone) showed that this substance is extremely germicidal to the organisms found in the alimentary canal. Its administration to rabbits resulted in the "practical sterilization of the contents of the stomach." In several experiments with these animals "the intestinal tract apart from the cecal pouch, was found to be sterile." Neither bouillon tubes nor agar showed growths, though the controls gave abundant cultures. Other experiments showed that enzymes and toxins are also destroyed or rendered inert by Acetozone. Further study demonstrated not only the remarkable germicidal power of Acetozone, but also the fact that its aqueous solutions may be given internally, and even injected intravenously, without harm. From these data we infer that this substance ranks among the most powerful germicidal agents, while it exerts no harmful effect upon the human organism, and may, therefore, be employed as a therapeutic agent in the treatment of summer diarrhea and other infectious enteric diseases with the best effect. There seems to be abundant evidence to warrant the suggestion that Acetozone solution should prove most valuable in colonic flushing, as it is entirely free from the danger that attends the use of large quantities of even weak solution of mercuric chloride, and for that reason may be used fearlessly.

HÆMORRHOIDS, TREATMENT OF.—In the non-operative treatment of hæmorrhoids, the writer uses the following treatment: Into the hæmorrhoid is injected from 5 to 10 drops of a solution consisting of 1 part of pure carbolic acid to 2 parts of glycerin and 2 parts of water. Two and sometimes three tumors are injected at a time, and the injection may be repeated after the lapse of one week. This is followed by gradual decrease in the size of the tumor; the prolapse disappears in a few weeks, and with it the bleeding, pain, and discomfort. The writer does not advocate this method in preference to the radical cure by operation, but resorts to it when patients refuse surgical treatment. It is important, in the first place, to determine whether the disease is primary or secondary to some affection of the pelvic organs. Operative treatment is not indicated in the first stage of hæmorrhoidal disease, but in the third stage no other treatment is indicated. The true value of the non-operative treatment in the second stage of hæmorrhoidal disease frequently is underestimated.—H. A. Bray (*Medical News*, July 2, 1904).

THE WET-TOWEL RUB.—As a means of obtaining the tonic action of water where the cold plunge is not well borne, Kellogg (Good Health, volume xxxix, p. 203), recommends the cold towel rub. The rubbing in this measure is not done with the towel, but with the hands over the towel. The towel is wrung out of water of a temperature varying from 50 to 60 degrees F., and is first laid upon the chest, the face, neck and head having been previously cooled. The patient grasps the upper end of the towel and holds it in place, while the attendant makes long strokes over the whole length of the trunk, rubbing always downward. The rubbing is continued until the towel becomes warm, and the parts are then dried by rubbing with the hand. After finishing with the chest the arms and legs may be successively bathed and then the back. This measure is of value where it is desirable to increase the nerve-tone and to stimulate the surface circulation.—*Therapeutic Review.*

URINARY TUBERCULOSIS IN WOMEN, SURGERY OF.—Tuberculosis of the urinary system is a surgical disease, being, as a rule, unilateral and often the only focus of tuberculosis in the body. If the disease is bilateral and there are no pronounced symptoms referable to the kidneys, the treatment should be that usually accorded tuberculosis of the lungs, viz.: suitable climate, nutritious diet, and proper regulation of the patient's rest and exercise; but if one or both sides begin to cause marked local or general manifestations surgical intervention is often of great benefit.

In case of bilateral disease or in associated disease of the lungs the anæsthetic is of great importance. Local cocaine anæsthesia may be used for nephrotomy, and nitrous oxide gas for nephrotomy, nephrectomy, or nephro-ureterectomy. Thickened ureters are generally tuberculous and should be removed with the kidney if the patient's condition justifies.

Bladder disease in these cases is often non-tuberculous, and removal of the diseased area should not be attempted at the first operation. If the bladder fails to heal within a year under ordinary methods of cystitis treatment, the disease is probably tuberculous, and if not occupying more than half of the bladder it should be excised.—G. L. Hunner (*Columbus Medical Journal*, June, 1904.)

MORPHINE HABIT, TREATMENT OF, BY HYOSCINE.—The writer uses the hydrobromate of hyoscine hypodermically in doses of

from 1-200 to 1-50 grain in the treatment of the morphine habit. The dose should be very small to begin with, 1-200 grain, and increased gradually to 1-100 grain. As morphine and strychnine are antidotes for hyoscine, no fear need be felt of producing disastrous effects. The writer has never seen any bad after-effects from its use. The plan of treatment is as follows: The patient is kept under observation for a few days, and the amount of morphine and cocaine reduced to what will keep him comfortable, although this is not necessary. The night before beginning the use of hyoscine, 6 to 8 grains of calomel, in combination with some vegetable cathartic, are given, and this is followed by a saline the next morning. The usual morning dose is given, but when the patient calls for morphine in the afternoon hyoscine is substituted, and from this time for thirty-six to forty hours the patient is kept under the influence of the drug, 1-200 to 1-100 grain being given every two or three hours, according to the condition of the patient, but never enough to stupify him completely. The patient should be kept in bed and supplied with a day and night nurse, so as to keep him under constant surveillance. If the pulse becomes weak or irregular, strychnine may be given and, if necessary, a little morphine or codeine is added. If there is need for an hypnotic, the writer gives trional or chloral hydrate, with bromide of soda. Large doses of the latter, given for a few days preceding the treatment, will allay nervousness. The after-treatment is the same as in other methods—tonics, nourishing diet and rest.—J. M. Buchanan (*American Journal of Insanity*, April, 1904.)

STRAY THOUGHTS.

THE MAN FROM THE CROWD.

Men seem as alike as the leaves on the trees,
As alike as the bees in a swarming of bees;
And we look at the millions that make up the state,
All equally little and equally great,
And the pride of our courage is cowed.
Then Fate calls for a man who is larger than men,—
There's a surge in the crowd—there's a movement,—
and then
There arises the man who is larger than men,—
And the man comes up from the crowd.

The chasers of trifles run hither and yon,
And the little small days of small things still go on,
And the world seems no better at sunset than dawn,
And the race still increases its plentiful spawn,
And the voice of our wailing is loud.
Then the Great Deed calls out for the Great Man to
come,
And the crowd, unbelieving, sits sullen and dumb,—
But the Great Deed is done, for the Great Man is
come,—
Aye, the man comes up from the crowd.

There's a dead hum of voices, all say the same thing,
And our forefather's songs are the songs that we
sing,
And the deeds by our fathers and grandfathers done
Are done by the son of the son of the son,
And our heads in contrition are bowed.
Lo, a call for a man who shall make all things new
Goes down through the throng! See! he rises in
view!
Make room for the man who shall make all things
new!—
For the man who comes up from the crowd.

And where is the man who comes up from the throng
Who does the new deed and who sings the new song,
And who makes the old world as a world that is new
And who is the man? It is you! It is you!
And our praise is exultant and proud.
We are waiting for you there,—for you are the man!
Come up from the jostle as soon as you can;
Come up from the crowd there, for you are the
man,—
The man who comes up from the crowd.

—Sam Walter Foss in *Success*.

DIAMONDS IN THE ROUGH.

There are many people who think that much of what is real culture and refinement is merely affectation. They believe that a diamond in the rough is the only genuine diamond. If a man is sincere, they argue, if he possesses manly qualities, and is loyal to truth, no mat-

ter how uncouth and coarse he may be outwardly, he will be respected and will be successful.

This argument is good only to a limited extent. What is true of an uncut gem is also true of a human diamond in the rough. No matter how intrinsically valuable they may be, no one would think of wearing uncut diamonds. A man might have a million dollars' worth of such gems; yet, if he refused to have them cut and polished, no one would appreciate them. The unpracticed eye would not be able to distinguish them from common pebbles. They are valuable only in proportion to the degree of brilliancy and beauty which the diamond cutter can call out of them.

So, a man may be possessed of many admirable qualities, but, if he insists on covering them with a rough, uncouth exterior, they will be robbed of much of their intrinsic value. They will be discovered only by keen observers, or expert character readers. What cutting and polishing do for crystallized carbon, education and refined social intercourse do for the human diamond in the rough. The grace of fine culture, a charming personality and an exquisite manner enhance its value a thousandfold.—*Success.*

THE TRIUMPH OF DESPAIR.

Behind the clouds the sky is blue,
  To-morrow may be fair:
Never despair! but, if you do,
  Work on in your despair.

The needle to the pole points true
  For dauntless men who dare:
Never despair! but, if you do,
  Work on in your despair.

Though fate no roses flings, but rue,
  And a thorny crown you wear:
Never despair! but, if you do,
  Work on in your despair.

Henry Tyrrell.

The one great lesson taught by the history of medicine is that freedom of belief, freedom of thought, freedom of speech, and freedom of action are the roots from which it flourishes; and the peoples who enjoy these blessings to the fullest will always lead the world in finding out the secrets of nature and in applying them to the comfort and happiness of mankind.—Dr. John Girdner in *Munsey's.*

NEWER REMEDIES.

Points on Dosage and Use of Abbott's Saline Laxative.—The beneficial effects of the most useful remedy may be defeated by a slight misunderstanding as to its action. The following suggestions have been made relative to the use of Abbott's Saline Laxative:

1. It acts best and in the smallest dose when given on an empty stomach, preferably from one-half to one hour before breakfast.

2. It may be given either in warm, lukewarm, cool, or cold water as the condition of the stomach indicates.

3. It is best given just after solution is completed, as shown by a glance underneath at the bottom of the glass.

4. It should be taken while the minute bubbles of carbon dioxide are still in evidence.

5. It may be dissolved in lemonade, thus supplying the acid flavor, or it may be sweetened according to taste.

6. The usual dose is a heaping teaspoonful in half a glass of water.

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Compels the dermal glands to do their natural duty; hence, the remedy for Colds, Bronchitis, Pneumonia and other respiratory diseases.

Respiton, THE SKIN ELIMINANT,
Eliminates self-generated ptomaine poisons; hence, the remedy for chronic invalids.

Respiton, THE SKIN ELIMINANT,
Overcomes Faulty Metabolism; hence, indicated in all torpid conditions of the system.

Respiton, THE SKIN ELIMINANT,
Restores normal action to the eliminating organs; hence, the remedy for all pathological conditions with dry skin and dry secretions.

Dose: Half teaspoonful every two hours until better—then teaspoonful four times a day.

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Syrup of Figs—is never sold in bulk. It retails at fifty cents per bottle, and the name—Syrup of Figs,— as well as the name of the California Fig Syrup Co., is printed on the wrappers and labels of every bottle.

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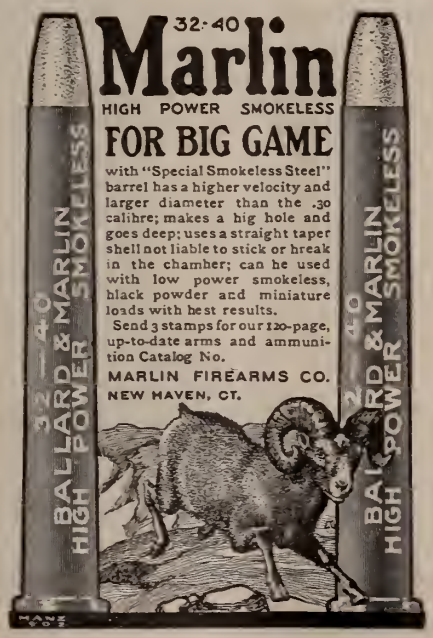

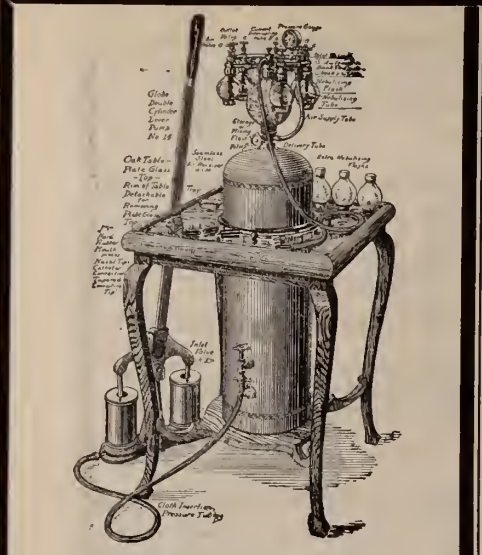

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THE

Vermont Medical Monthly

Official Organ Vermont State Medical Society.

Vol. x. No. 8. Whole No. 116. } Burlington, Vt., August 25, 1904. { $1 per year. Single copies, 15 cts.

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The Vermont Medical Monthly

Vol. X. August 25, 1904. No. 8.

ORIGINAL ARTICLES.

A SHORT HISTORY OF THE BENNINGTON COUNTY MEDICAL SOCIETY, WITH REMARKS ON EARLY METHODS OF PRACTICE.*

By Luther B. Newton, M. D., North Bennington.

The first incorporated Medical Society in the State of Vermont was organized on the 19th of August, 1784, and consisted of most of the physicians residing in the counties of Bennington and Rutland.

The act of incorporation was dated October 25, 1784, and its corporate name was "The First Medical Society in Vermont."

This society lived a few years—how many years, we can find no record to show. But we do know that about 1840 the General Assembly abolished all legal restraints to the practice of medicine and surgery. And Bennington, although reduced in numbers, but possessed of considerable grit and pride, saw the importance of an organization to hold themselves together. However, enough were left to make a beginning; there were the two Swifts of Bennington, B. F. Morgan of Pownal, Johnson of Shaftsbury, Littlefield of Arlington, two Sargeants of Dorset—all men in whom the county feels just pride. Others were admitted—among them Dr. Luther Moseley of Arlington; and Dr. Littlefield, the oldest man present, was elected president.

*Read at the 90th Annual Meeting of the Vt. State Medical Society.

This society ran along for a few years till the attendance became so small and the meetings so far apart that interest lagged and it ceased to breathe.

The next medical society was formed in Windham County in 1794, and incorporated on the 21st of October of that year, by the name of "The Second Medical Society in Vermont." On the 6th of February, 1804, another medical society was incorporated in the County of Franklin, denominated "The Third Medical Society in Vermont."

On the 27th of October, 1812, a County Medical Society was incorporated in the County of Windsor. But no State Society was formed till the year 1813. On the 6th of November of this year an act was passed, declared, in its preamble, to be for the improvement of the theory and practice of the different branches of the healing art.

This act authorized the physicians in the several counties to form themselves into County Societies, conferring upon them, when thus formed, corporate powers. It also established a General Society to be composed of three members from each County Society to be chosen by ballot and declared these, when duly organized by the choice of a president and other officers, to be a corporate body by the name of the "Vermont Medical Society."

Under the provisions of this act, which subsequently experienced some modification, several County Societies and a State Society were organized. These societies were sustained for several years with considerable spirit and ability and exerted a favorable influence throughout the State, in correcting the evils and elevating the practice and standard of the medical profession.

But at length the attention of many of the leading physicians in this State was diverted from the interests of the medical societies to the establishment of schools for medical lectures, in consequence of which the societies languished, and for several years previous to 1841 the State Medical Society hardly had a name to live. This state of things was deeply lamented by many of our first medical men and through their exertions during the early part of this year, the attention of the medical faculty was pretty extensively awakened to the subject of resuscitating the Vermont Medical Society. In consequence of which, on the 15th of October, 1841, the day of the annual meeting of the society, members from different parts of the State assembled at the State House in Montpelier and, after partially remodeling their constitution and giving to the society a more efficient organization, elected the following officers for the ensuing year: John Burnell, President; James Spaulding, Vice-President; Z. P. Burnham, Recording Secretary; Joseph Perkins, Corresponding Secretary; Walter Burnham, Treasurer. The other members were Edward Lamb, John Fox, H. H. Miles, Seth Cole, Charles Hall, —— Redfield, E. Alexander, J. A. Allen, Frederick Story, Melvin Barnes, W. R. Ranney, James Tinker, Noadiah Swift, curators; and one or more councillors in each county. A Board of Examiners was also appointed. The annual meeting of the society is to be held at the State House in Montpelier on the Wednesday next following the second Thursday in October at 10 o'clock in the forenoon.

By an act of the Legislature, passed November 6, 1813, there was incorporated a Medical Society in each county in the State, denominated to be the Medical Society of the county in which it was formed, and a general medical society denominated the "Vermont Medical Society," to be composed of three delegates from each County Society, chosen every three years in such manner that one delegate from each county goes out of office every year. The officers of each of these societies are a president, vice-president, secretary, treasurer and three or more censors chosen annually. They have the various powers incident to corporations for similar objects and especially in regulating the uniform mode of examination and admission of students to practice.

The County Societies held semi-annual meetings at the time and place of holding the County Courts in the several counties, and the State Society an annual meeting at Montpelier during the session of the Legislature.

Subsequent to the passage of this act in 1813, societies were formed in the counties of Bennington, Rutland, Washington, Windham and Windsor.

In 1860 another society was formed, and it broke up in January, 1864, with only two members present—Dr. Luther Moseley of Arlington and Dr. Ames of Manchester Centre.

On January 13th, 1873, an effort was made to organize another Bennington County Medical Society. On the 24th of January of this year (1873) the following officers were temporarily elected: Luther Moseley, President; Lyman Rogers, Treasurer; Luther B. Newton, Secretary. At the organization of this society it was distinctly understood that it should have for its guide the Code of Medical Ethics of the American Medical Association adopted in 1847, affiliate with, be under the control of the Vermont State Medical Society and the American Medical Association. A constitution and by-laws were adopted and signed by the several members of the society then present.

In January, 1874, the town of Hoosick was added to the society, with Dr. E. N. S. Morgan, President—and continued till 1879, when it was illy attended and was adjourned to the call of the president. The Union Medical As-

sociation was opened, embracing Bennington County, Vt., Washington County, N. Y., Rensselaer County, N. Y., and Berkshire County, Mass. That survived as long as it could, and was abandoned.

October 23, 1901, another effort was made to resuscitate the Bennington County Medical Society, although not extinct, because all the officers except the president were alive and had the power to open it. A meeting was held at North Bennington on that date and voted to hold the annual meeting at Arlington, according to the constitution, on the second Wednesday in January, 1902.

I cannot refrain from saying something about one who was among the foremost men of this county in the organization and maintenance of the societies of this county—some or all which died for want of support. This man was Dr. Luther Moseley of Arlington. He was born in Montpelier, October, 1804, died in Arlington, November 1, 1876, being 72 years of age. He was graduated from Pittsfield, Mass., Medical College, August 1, 1833. He commenced practice with a Dr. Gregg of Unity, Mass. Afterward married a sister of Dr. Gregg's wife, a Miss Gledden, who died not far from the time of Dr. Moseley's death. He was a student of the first order and put in practice that which was best for his patrons. As a physician he was the best the county afforded at his time. As a surgeon no one doubted his skill. He was the inventor of adhesive strips for making extension in fractures of the leg. He had a case at Arlington (a Mr. Holden) to whom he applied the strips. During a visit Dr. Crosby of New York was invited to see the application of the strips. Some time after Dr. Moseley was in a New York hospital and saw his method in use and learned it was Dr. Crosby's method.

There were other men of prominence in this county who have not been forgotten. They were men not to be ignored. Besides those of whom we have already spoken were the two Morgans (B. F. and his son Edward N. S.), Dr. Lyman Rogers, who commenced practice in Shaftsbury in 1858, Dr. Martin J. Love, who lived, practiced and died in Bennington; Dr. Stephen E. Ranney of North Bennington, and others.

It is the duty of this Society as a composition of the members of the regular profession of this county, who are subject by adoption by the American Medical Association and the Vermont State Medical Society, to whom we are to look for instruction, guidance and example. We are the offspring of the "First Medical Society in Vermont," which was instituted in 1784 by the best men in the profession—men who were honest, orthodox and tried to benefit their patrons as best they could by their knowledge and ability. These men are dead but their works still live. In those days quackery was unknown. But as time passed ignorance and dishonesty began to get a foothold—our fathers saw a need of protection for themselves and their patrons. At about this time the American Medical Association stepped in, presented their code, which no one but an honest man could adopt, and that to-day we adopt and accept as our motto. It has been in vogue since 1847, and since its adoption no one has ever tried to change it. The originators of the code were the best men this country afforded and their names will never be forgotten.

It is for us, as a society, to be as a family, each member to be a part of that family. It is for us to hang together as a family—aid each other in accumulating all the medical knowledge possible. When each has made a discovery, even if it be a failure, let it be imparted to the others. The profession and the public demand all our best efforts, and it is their right to receive them. We are an insti-

tution of charity and our services are demanded, whether we get pay for them or not.

I herewith give you what Dr. Moseley had to say in regard to the matter of history:

Address delivered by Dr. L. Moseley of Arlington at the annual meeting of the Bennington County Medical Society, January 14, 1874:

Gentlemen:—You are aware that this is the first anniversary of the present existing Bennington County Medical Society, and I am here nominally to fulfill the last duty of its first retiring president. We have had similar organizations in this county previous to this, and it is not many years since I did the same thing in this very room, at the last meeting of this society's immediate predecessor. This leads me to go back still farther—somewhere about the year 1840, the younger members of the profession in this county, myself among the number, wishing to avail ourselves of the benefits of association to see what should be done.

The result was the revival of what we then termed the old Bennington County Medical Society. That Society had in its day been necessary for purposes aside from mere mutual benefit, had a charter as auxiliary to the State Medical Society, with authority to grant license to individuals to practice medicine and surgery, according to the requirements of the law as it then existed, had their board of examiners and their seal; that seal is now in my possession, a piece of copper some larger in diameter than a silver dollar—if my memory is correct—about the size of the coin, and five-eighths of an inch thick with the proper engravings upon one side. I have, likewise, if not lost, and think they can be found, a few of their blank forms, which with the imprint of the aforesaid seal attached, enable the possessor to show his patrons and the public, that he had entered his calling through the right door and was legally entitled to his fees. That was mostly in advance of Medical Colleges. But the times had changed. Medical institutions had sprung into existence not only in cities, but in different parts of the country, with teachers more learned in their special departments. This absorbed the duties of the examiners both of the state and county societies, leaving them nothing to do. Finally the general assembly abolished all legal restraints to the practice of medicine and surgery. In this way matters stood when this attempt was made to revive the old society. By this time death or removal had materially reduced the number of its members, enough, however, were left to make a beginning. There were the two Swifts of Bennington, Morgan of Pownal, Johnson of Shaftsbury, Littlefield of Arlington, two Sargeants of Dorset, all men in whom the county feels just pride. Others were admitted, and Dr. Littlefield, the oldest man present, was elected president. After this the society went along very well for a few years, but the members were too few and scattering and their meetings too infrequent to keep up an interest. Consequently, after having met only twice a year for six or eight years, the meetings became very poorly attended and finally ceased entirely. Then, I think about the year 1860, or a little previous, another Bennington County Medical Society was brought into being. It would have undoubtedly been another revival of the old society, but their record could not be found and we were under the necessity of starting anew, independent of State authority. After organization it followed very much in the footsteps of its predecessor. Its last meeting for the election of officers was held, I think, in January, 1864 or 5. I, the retiring president, read a short paper, that I had hurriedly written as an apology for an address which the occasion required. I had one sole auditor, the late Dr. Ames of Factory Point. We proceeded to elect officers for the year ensuing. Dr. Ames became president, Dr.

Rogers, I think, secretary, and Dr. Moseley, treasurer. No funds, however, ever came into his hands. Notwithstanding this failure, we made a tolerably good showing in the next weeks, the Manchester Journal taking care to say nothing definite about the number that had assembled at the meeting, in hopes to "rekindle the last spark of an expiring flame."

But the patient was too far gone—it was its last breath, "Peace to its ashes." Our society never met again.

The first step taken in organizing our present society, was the issuing of the following circular to every physician in the county as follows:

Bennington, Vt., Jan. 13, 1873.

Dear Sir:—The physicians of Bennington County are respectfully invited to meet at the hotel in Arlington, on Friday, the 24th inst., at ten o'clock A. M., for the purpose of taking measures to advance professional and social interests of the faculty.

Yours truly,

E. N. S. Morgan, M. D.
R. W. Bennett, M. D.
Lyman Rogers, M. D.
H. C. Day, M. D.

The result has proved a satisfactory success. We have an organization in working order, not confined with county limits. Our meetings have been thus far monthly, without exception, affording frequent opportunities for the interchange of opinions, thoughts and feelings, thereby making us better acquainted with each other professionally, intellectually, socially, and "last though not least," morally. And here, gentlemen, perhaps I ought to stop, but I have a little more to say. When I sat down to write this I contemplated going over more ground than I have found practical, consequently I must confine myself to a few topics.

The warfare between the advocates of depletion on the one hand, and stimulation on the other had been going on for some generations, when I first became a spectator on the stage. There were at this time disciples of Cullen, and disciples of Brown. Our own State had both its Gallup and its Tully as teachers, the former a special advocate of the lancet and the latter for its opposite.

The great majority of the profession, however, were on the side of depletion so that the fiends of the lancet had decidedly the inside track, so much so that in all inflammatory and congestive conditions depletion had become very much the rule, and stimulants and tonics the exception, until the pendulum, having vibrated to its farthest verge in one direction must now begin to diverge toward the opposite extreme. In this latter direction we have been tending for the last forty years, so that tonics are fast becoming the rule, and depletion, especially by using the lancet, the exception. How much farther we shall go in this direction, I cannot tell, neither can I tell which extreme will prove the worst. There is a "Cilla" upon one side and a "Charybdis" on the other, and the mariner's safest course must lie somewhere in the smooth waters between the two.

In the meantime new remedies, new uses of the old ones, new chemicals, new appliances in surgery have been brought to notice in great abundance. That anaesthesis could be produced by nitrous oxide gas, sulphuric ether and some other substances were known long ago. But the practical use of that knowledge to the dentist, the surgeon, or the mid-wife is not thirty years old. The first practical application of adhesive plaster in securing extension in the case of fractured bones was, according to the best knowledge I have, less than forty years ago, and I think the starched bandage and plaster cast came into use as splints, or in room of them, somewhere about

the same time. I might go on with the list, but this is sufficient for my present purpose. The necessity of particular cases has been the mother of these new devices, each one of which has in its time carried some individual into notoriety as a public benefactor more or less. It is, however, very common, I fear, that the men who get the credit are the ones who write the most, and often practice less. They gobble up the ideas and experience of the less crafty brethren and get before the public as the offspring of their own brain, what they have only been fortunate enough to adopt. Dr. Welles conceived the idea of extracting teeth and performing other painful operations during the insensibility produced by the inhalation of nitrous oxide gas, and demonstrated its utility in practice. Some time after this Dr. Jackson told Dr. Morton that sulphuric ether would do the same thing, for its effects were similar to those of the gas. Subsequently Dr. Morton carried sulphuric ether disguised by the addition of other substances, which did not alter its effects, and a new name into successful practice. Consequently Dr. Welles met with two competitors for the honor of perhaps the most valuable addition to modern practice. These latter came very near outrunning him in the race for distinction, winning the prize and carrying off the honors. The controversy, however, does not seem entirely settled yet—many still looking upon it as a drawn game.

In regard to the use of adhesive plaster for the purpose of securing extension in fractured bones, there have also appeared several claimants for priority. I speak of these more particularly because I ought to have had an interest in the claim and been one among the number of contestants, but I am too dilatory and consequently came out nowhere. I had discovered the merits of adhesive plaster as a means of making very secure and comfortable extension in the cases of fractures and been familiar with its use a dozen years before I had the first intimation that anyone else, aside from those with whom I had come in immediate contact. Many others, for aught I know, may have done as much and made as little noise about it as I did. That any one else under similar circumstances should have tried the experiment is nothing strange. What seems strange about it is that a method so far superior to any other then in use for this purpose, with material so readily obtained, should have escaped the notice of the profession so long. I will now give you an account of my first lesson in the use of adhesive plaster for extending purposes, relating to you the first case in which I applied it, and the first time I ever saw or heard of its being applied, and then detain you no longer.

On the morning of July 20th, 1840, Mr. Willard Holden of this village, aged 38 years, during an encounter with a cross bull, got a fracture in the femur or thigh bone. The fracture proved to be somewhat comminuted and very oblique, and Mr. H., a man in the prime of life, with very strong muscles. These circumstances combined rendered the efforts of the limb to shorten unusually strong. The usual appliances to the foot and ankle were used for the purpose of fixing the extending means, which were worn one after another but a short time without producing discomfort about the foot and ankle and thence extending to the broken region. Consequently spasmodic contractions and uneasiness generally were the result. A good degree of force seemed requisite to keep the limb sufficiently extended. But the greater the force applied the greater the amount of irritation and consequent spasmodic action induced, hence force begat the necessity for greater force which in fracture extensions, I think, may be considered as a rule with few exceptions. Different expedients and fixings having been resorted to with temporary relief, usually of but short du-

ration, something further must be tried. This was in my younger days and I could not afford to have this man get up with a shortened limb. It would be a source of vexation to him and for myself an advertisement that I did not care to make. In this dilemma, the thought of fastening by means of adhesive plaster to the skin of the leg and from that make an extension, was conceived. To carry it out I procured two strips of bandage about three inches wide and a yard long, one side of which I spread with adhesive plaster about two-thirds of its length, enough to reach from the foot to the knee—this was before the day of machine-spread plaster (at any rate I never had seen any). These strips I then applied, one on each side of the leg, and then passed a roller bandage over them from the foot to the knee. The unplastered ends I tied below the foot and from this point made an extension. The result was a great way beyond my expectations. The uneasiness about the foot and ankle were no longer felt. Those spasmodic twitchings were gone. The force required to the limb to produce its proper length had become comparatively none at all, and the transition from harrassing uneasiness to nearly complete relief was truly astonishing. With the splint resting securely against the ishchium for counter-extension above, and fastened to the adhesive straps for extension below, no man ever enjoyed a broken limb better than he did during the remainder of the treatment. The gratifying result of that trial in that case, gave me such unbounded confidence in adhesion to the skin as a fixture for making extension, and so little in other means, that since 1840 I have always trusted to adhesive plaster and nothing else. I have never seen or heard of adhesive plaster being used for the purpose here described except in my own private practice, until the latter part of the year 1852, when I visited the surgical ward of the New York City Hospital. There I found adhesive plaster used in all cases requiring extension, in the same manner that I had been using it for the past twelve years. This excited in me a feeling of surprise and an anxiety to know how it came about. I had until this time harbored the idea of making this matter public, but now I found I was too late in the day. How it came about, I learned not long after from my friend and relative, Dr. James A. Gregg of New Hampshire, whom I met now for the first time since 1840. It so chanced that in September of that year, and while Mr. Holden was about on crutches, that he (Dr. G.) made me a visit. I related to him my case and introduced him to Mr. Holden. The idea of extending by plaster was entirely new to him as well as me, and he said I ought to publish it, which I then thought I should do. Dr. Gregg was at that time living in Hopkinton, New Hampshire. Some six years after that he removed to Manchester, same State, and became a neighbor and townsman of Dr. Crosby. At this last interview with Dr. Gregg, I told him what I had seen at the hospital and asked him if he knew anything in relation to it. His reply was that it had gone out as Dr. Crosby's method, and then went on to tell me how Dr. Crosby came to get the credit of originating it, and gave this little bit of history in relation to it. He says: "Not long after going home from Arlington in the fall of 1840, I had occasion to try your method of extension by means of adhesive plaster, as used by you in the case of Mr. Holden, and was so well satisfied with the result that I continued to use it whenever a fracture occurred requiring extension, and after I removed to Manchester, and became neighbor to Dr. Crosby, I showed him its application, and told him what I knew about it. Subsequently Dr. Crosby read a paper before the New Hampshire State Medical Society upon the subject, claiming it as a new idea, and giving no one any credit for it but himself, which

was printed, and extension by means of adhesive plaster was sent out to the public and the profession as Crosby's method."

And now, gentlemen, with thanks for the honor you have done me in making me your first president, as well as for the favors bestowed and indulgences shown, I retire to make room for my successor. In the meantime, I am happy to introduce to you Mr. Willard Holden, whose case I have been relating, so that you may have his account as well as mine, of this early application of plaster extension. I have no doubt the facts in his case are still fresh in his memory.

SOME INTERESTING CASES

Presented to the Clinical Society of the New York Polyclinic Medical School and Hospital. Stated Meeting, held April 4, 1904. The President, Dr. James Hawley Burtenshaw, in the Chair.

SYPHILITIC PERIOSTEITIS.

Dr. W. R. Townsend presented a patient, aged 26 years, with a syphilitic condition of the wrist. Five years ago a diagnosis of tuberculosis of the wrist was made, and a partial excision performed, which resulted in a movable joint. Two years ago a tapering swelling was noticed at the phalangeal joints, attaining its greatest diameter at the articular surfaces. When first seen by the speaker, three weeks ago, he had X-ray photographs of the hand taken, and by this means established the diagnosis of syphilic periosteitis, with joint inflammation. This condition undoubtedly existed when the excision was done for the relief of the supposed tubercular disease. It was an excellent illustration of the value of the X-ray in diagnosis, and especially in differential diagnosis. Radiographs of a tubercular wrist were also shown, in order to bring out clearly the differences between a syphilitic and a tubercular process. The patient had been on antisyphilitic treatment for three weeks, and in that time the pain had decreased, motion had increased, and her feet, which were affected by a similar pathological condition, were much improved, making walking much easier. The speaker also showed a radiograph in which the bones of the ankle were affected by syphilis, and, by way of comparison, one of a foot in which the bone was normal, to illustrate the changes which the bone and surrounding tissue undergo in syphilitic periosteitis.

MYOSITIS OSSIFICANS.

This case was also reported by Dr. Townsend. He said that this disease, in which the muscles undergo bony changes, is very rare. The most common cause is traumatism, and a Japanese surgeon has reported several cases since the beginning of the Russo-Japanese War, in cavalry officers, whose adductor muscles have been damaged and this condition has resulted. When there is no history of traumatism, there is no clue as to why muscles should be affected. In the case reported, such a large mass of muscle was infiltrated with bone that there was no motion at either knee or ankle. On one side the femur and muscles were normal, which could be distinctly seen by means of the X-ray apparatus; on the opposite side, extending from the pelvic along the track of the adductor muscles there was a bony deposit almost similar to the bone in the shaft of the femur.

The second radiograph showed the process extending into the lower leg. The flexed bone could be seen, and extending to one side a solid mass of infiltrated bony muscle. In a short time all the muscle on that side of the limb would be affected, and there would be a solid bony mass in addition to the fibula itself. The muscular motions, of course, will be lost, and the patient may have to lose the lower extremity. The prognosis in these cases is very bad and treatment is unsatisfac-

tory. Such cases are rare when, as in the present instance, there is no history of traumatism.

HYSTERICAL COUGH.

Dr. G. B. McAuliffe presented a young woman who was suffering from paroxysms of hysterical coughing which resembled in sound the barking of a dog. About one year ago she began to cough, and has coughed almost uninterruptedly ever since. Examination showed no local lesion, and the cough seemed to be purely laryngeal. Nothing abnormal is to be seen in the larynx except a slight redness over the arytenoids. Extralaryngeal applications of electricity afford relief, but internal medication has been of no avail. The application of adrenalin by means of a spray gives relief for twelve or fourteen hours, when another paroxysm comes on. This, however, is merely a symptomatic treatment of the cough.

Dr. D. J. McDonald said that he had seen the patient about a year ago, and that he had applied electricity each day, first using the high-tension and later the galvanic current. When first seen by him she had presented every symptom of hydrophobia, barking and foam at the mouth, but was able to walk about. Under treatment her condition improved so that the attacks occurred only monthly, and later only once in two months. She was also given adrenalin and arsenic internally.

FRACTURE OF THE BASE OF THE SKULL.

Dr. John A. Bodine showed a boy who had been operated on by him at St. John's hospital for fracture of the vault involving the base of the skull. The patient, while coasting down a long hill, having acquired a terrific impetus, crashed into a wagon, his head strikin the hub of the wheel. The temporal parietal region of the skull was not unlike an egg-shell crushed in. He was taken to the hospital in a condition of profound shock, and it was thought unwise to resort to any operative procedure to relieve the brain pressure or to stimulate with salt solution for fear of inaugurating intercranial bleeding. This condition of stupor lasted three days and three nights when his condition began to improve. With practically no anesthesia the larger portion of the right parietal bone was removed. The fracture was compounded and extended through the temporal bone and into the base, and was again compounded in the vault of the pharynx. He had bled profusely into his stomach, which blood was vomited. When all of the depressed fragments of bone had been removed the boy's condition improved steadily until he was out of danger. Some time during the second week after the injury, right sided facial paralysis, paralysis of the right external rectus muscle of the eye and loss of taste in the right side of the tongue was noted. In addition, there was symmetry of the soft palate during phonation. The study of the anatomy of the parts thus involved demonstrated clearly the line of fracture at the base of the skull. With facial paralysis, with symmetry of the soft palate and loss of taste on the right side, the fracture must have included the bony parts transversed by the facial nerve between the geniculate ganglia and the origin of the chordae tympani nerve. Furthermore, as there was paralysis of the external rectus muscle of the eye, without involvement of any of the nerves that lie in juxtaposition with the external rectus in the cavernous sinus, the line of fracture must have been near the posterior clinoid process of the sphenoid bone. It does not seem reasonable to expect that the ophthalmic nerve would have escaped, had the line of fracture been anterior to those processes. The fact that the paralysis came on two weeks after the receipt of injury would indicate that it was due to an inflammatory process of the

nerves, making the prognosis as to the ultimate recovery of these paralyzed muscles better than if the paralysis had been coincident with the injury.

DEFORMITY FOLLOWING FRACTURE OF THE CONDYLE OF THE HUMERUS.

Dr. Bodine also showed a case of deformity following fracture of the external condyle of the humerus. When the patient was seen the arm was swollen, and a most careful examination under anesthesia demonstrated nothing more than that it was a fracture of the external condyle involving the joint. It was treated in a position of acute flexion, the hand midway between pronation and supination. When healing had occurred and the arm was taken down, the existing deformity over the external condyle was found. Nearly a full range of motion of the joint has been secured. Since this patient's injury the speaker has seen two other fractures of the external condyle identically like this one. He said that the deformity is due to the fractured piece being turned at an angle of 180 degrees, the surface looking toward the skin, and that there is but one way to remedy it—by open suture with reposition of the fragment. This was done, under cocaine anesthesia, in the last two cases seen, with perfect results.

REGENERATION OF THE RADIUS FROM ITS PERIOSTEUM.

The next patient, shown by the same speaker, was a splendid example of a regeneration of the radius from its periosteum. Two years ago the little patient sustained an ordinary Colle's fracture. At a nearby dispensary the arm was put up between an anterior and posterior splint, padded with cotton, the bandage including the hand almost to the finger tips. As this happened in July and the boy was not told to return for three days, violent cellulitis of the arm developed. The boy was seen by the speaker three days after being injured, and when the splint and dressings were removed two lines of lymohangitis starting from the interdigital clefts of the three outer fingers could be plainly seen. At the time of the injury the boy was playing on the street and the accumulated germ filth in the interdigital clefts, under the moist perspiration induced by the dressing, was the port of entry of the infection which caused the cellulitis. It was a practical demonstration of the fact that no fracture should be put up without the skin being in a condition of surgical cleanliness. An analogy of this is seen in the infection of the glands of the groin from filth around the frenum, without any break in the mucous membrane. The entire radius necrosed and was removed. The boy has a strong arm, flexion pronation and supination being almost perfect, but there is considerable deformity.

The next patient was an example of Colle's fracture, the deformity not being corrected at the time of the injury. There had been entire loss of function, immobilization of the wrist, loss of supination and pronation, as well as deformity. The operation consisted in chiseling through the line of fracture, the incision in the skin being placed on the dorsal end of the wrist rather than at the outer side of the radius, because of the uncertain position of the radial nerve. After correcting the deformity of the radius it is usually found that the hand is still in abduction and there is a projection of the lower end of the ulna, which can only be corrected by taking a section out of this bone. This had been done and all the motions of the wrist and forearm had returned and the deformity had been entirely corrected. The patient was operated on two years ago, and a second patient was also shown, operated on three months ago, with the same result. Casts were presented, showing the condition of the arm prior to the operation. A third patient was operated on three weeks ago. The after-treatment in these cases of ancient Colle's

fracture is the same as in a recent fracture, that is, a straight splint on the posterior aspect of the arm and the hand carried into extreme abduction, with flexion of the wrist. The speaker did not believe it wise to ever put the arm between an anterior and posterior splint in Colle's fracture.

UNILATERAL ANKYLOSIS OF THE JAW.

Dr. Bodine also showed a patient, 18 years of age, who had an attack of scarlet fever sixteen years ago, followed by a suppurative parotiditis of the right side. A number of incisions were made to let out the pus, as the scars of the face showed. Unilateral ankylosis of the lower jaw followed. The patient had been brought up, throughout his childhood as well as his adolescence, entirely on liquid food, his teeth being closely in apposition. Some four years ago an attempt was made at one of the hospitals to relieve the condition. The scar of this operation gave a clew as to what the surgeon attempted to do. The skin incision was above the exit of the facial nerve. Apparently a linear osteotomy was performed, but it failed to benefit the patient beyond permitting him to separate his jaws about a quarter of an inch. The speaker's incision was placed just above the angle of the jaw. The contracted soft parts were separated from the bone, and then, instead of a linear osteotomy, a triangular section of the ramus was removed, the base of the triangle being the posterior border. Still the patient could not open his mouth, and the points of scissors were passed through a cleft in the bone, and the contracted internal ptergoid muscle clipped. The mouth could then be opened to its full extent. This case beautifully showed that sixteen years immobilization of a normal joint, that is, of the opposite healthy joint, does not produce ankylosis.

A DEMONSTRATION OF SKENE'S METHOD OF ELECTRO-HAEMOSTASIS

was given by Dr. W. R. Pryor. He said that the celebrated Scotch surgeon, Keith, whose name was particularly associated with the removal of massive abdominal growths, treated the pedicles in the following manner: He grasped them with a powerful crushing-clamp, and by means of a superheated iron, heated this clamp so as not to burn the pedicle, but to cause it to become dry and parchment-like. In order that this might be accomplished, and yet not to apply too much heat, so as to produce a dead tissue, as in an ordinary clamp and cautery operation, he had to exhibit an unusual acquaintance with the details. However, his pupil, Skene of Brooklyn, became impressed with the thoroughness of the hemostasis which Keith secured, with the absence of pain in the stump, the absence of suppuration, and with the smooth convalescence of the patients, and having seen the complications which arise from the application of ligatures in certain situations, he, with the assistance of a skilled electrician, devised instruments for very simply doing what Keith did by a complicated technique, and with absolute precision.

The vessels to be obliterated are grasped with heavy forceps, very much like the pile clamp, adjacent tissues are protected either by means of a non-conducting shield or gauze pad, and as the clamp compresses the tissues a current of electricity is allowed to run through the clamp, heating it to about 190 degrees. Taking an ordinary ovarian pedicle as an example, a fair compression is secured for one minute; then for another minute, more compression; and then for another minute more still, the instrument being all the while heated by means of electricity to 190 degrees. Upon removal of the clamp the pedicle is

found converted into a tissue exactly similar in appearance to catgut, translucent, in thickness only one-eighth the original pedicle, perfectly dry and with the veins, arteries, nerves and muscular fibres all coagulated into one mass, in which one cannot be distinguished from the other. The softer tissue, the slower should be the compression, and the less the time during which pressure should be applied.

"When my attention was first drawn to this method, a number of years ago, I said that it would open up to the possibilities of the vaginal section certain cases which never had been attempted that way, but I was unwilling to apply to my patients this method of controlling vessels until I had experimented. I therefore secured fresh arteries and sealed them by Skene's method. Upon subjecting these to hydrastic pressure, I found that it required six times the normal amount of intra-arterial pressure to open up the mouths of the vessels closed in this way; for instance, assuming that the pressure within an ovarian vessel is equal to three pounds, such pressure would have to be eighteen pounds, or greater than the aorta, in order to open the vessel. It is necessary, before applying any of these instruments, to have them thoroughly coated with sterile vaseline, otherwise they stick to the tissues.

"This method of occluding vessels should not be regarded as an absolute substitute for the ligation of large trunks by Wyeth's method ligation in continuity, with approximation of the inner coats of the vessels without rupture, but it is a substitute for ligation of vessels in certain situations and under certain conditions. We all know the disadvantages of ligating en masse the oedematous and necrotic pedicle of a twisted ovarian tumor, or the broad ligament in an ectopic gestation associated with infection and oedema. We also know the disadvantages of tying off a pus focus, such as a gangrenous appendix or puosalpinx. Again, in tying off certain very fragile pedicles, such as in ectopic gestation or sepsis, we see our ligatures cut through the swollen and friable tissues, producing a disagreeable degree of bleeding. Again, in hemostasis in vesical and rectal polypi, in erectile tissue about the vagina, in the tongue and spleen this method of hemostasis is far superior to any other. It has been found in the abdomen, where it is intended to perform intestinal resection, that two broad lines of absolutely sterile and obliterated gut-ends can be approximated without the escape of a bubble of gas or feces to soil the suture-line; and afterward manipulation with two fingers opens the occluded ends, so as to make a continuous lumen. The twisted pedicle of an ovarian cyst, the infected pedicle of a dermoid cyst, and the highly vasculated pedicle of a pedunculated fibroma may be removed by this method with absolute satisfaction and without the introduction of any suture material.

"In my hands its chief application in operations within the abdomen has been in the performance of my operation of total abdominal extirpation of the cancerous uterus and adenexa, with preliminary hemostasis, produced by ligation of the ovarians, illiacs and obturators together with extirpation of the upper third of the vagina. Skene's method of electro-hemostasis is the only procedure by means of which I have ever been able to control bleeding from the erectile tissue about the vagina in this operation.

"It would seem to me an ideal method to apply in extirpation of the gall-bladder at its neck. The removal of the spleen, I believe, can be accomplished by this method with an insignificant mortality because secondary hemorrhage is impossible and much time is saved. I find that my acquaintance with this method of hemostasis enables me to treat all my cases of ectopic gestation through the vagina and with-

out abdominal section. I have yet to meet an ectopic gestation which I cannot so treat, and can conceive of its failure only where the products of conception are too large to pass the vaginal outlet. It has enabled me to remove dermoid cysts through the vagina and all ovarian cysts which were small enough to pass through this canal.

"I will now demonstrate to you upon this living animal this method of controlling bleeding. We will first take the small intestine, which in the dog is many times thicker than in the human being. Assuming that I wish to make a resection of the intestine or that I propose to close the two ends, where resection is to be followed by end-to-end or side-to-side anastomosis, I clamp the gut in two places and turn on the current. I push the clamp to the first notch, and at the expiration of half a minute we see a slight bubbling along the sides of the clamp. The heat produced is not too great for the touch, although it is disagreeable to the fingers. At the expiration, the clamp is pushed down one more clamp, and now the bubbling is quite energetic. After the second minute the clamp is pushed to the third notch, or as far as it will go, and the tissues show the escape of very little steam, but the structures touching the clamp have become white. In 2½ minutes the clamp is taken off and the stump inspected, on one side I find that I have not applied sufficient pressure and heat, whereas on the other, the intestine which was grasped with the clamp is converted into a thin ribbon of translucent, parchment-like tissue. I reapply the clamp for one-half minute to the other side, and the process is complete. Now, with scissors, I cut through these thin ribbons of tissue to see that the gut ends are absolutely closed. Without escape of gas and without escape of feces we have produced two stumps which are bloodless and uncontaminated by intestinal filth and in which you can do such suturing as you see fit.

"The dog is pregnant, nearly to the full term, both cornua being filled with puppies. By manipulation I separate a portion of the uterine muscle and grasp it with the forceps, allowing it to remain on three minutes. I then cut the uterine muscle and you will find absolutely no oozing. The large utero-ovarian artery, which goes to one cornu, I purposely sever, so that you may see it spurt; then I grasp it with the forceps and subject it to heat and pressure for two minutes and it is perfectly dry. Turning the animal over and pulling out the spleen, which in the dog has a head and quite a tail, I grasp it at the point where it is about two inches wide, with the forceps, turn on the current, and by gradually increasing the pressure for one and a half minutes you will notice that this highly vascular organ is, at the point of pressure, converted into a thin sheet of parchment, through which one can almost see. With the scissors I sever this point and no blood escapes. I now take the large bunch of veins in one broad ligament, clamp them, heat them to 190 degrees for one and one-half minutes, remove the forceps and cut the stump, and no blood escapes.

"Dr. Skene was not content with the results in more than two hundred applications of his method, and by experimentation and the use of the microscope in the hands of an expert microscopist he demonstrated that the pedicle never became infected and that the current in the vessels never became re-established; that, whereas the tissue did become organized, it always remained as a homogeneous mass, in which it was impossible to identify nerves, muscular tissue, mucous membrane and vascular walls. My enthusiasm for this method of hemostasis is more than warranted, I can assure you, for I have applied it in double ovariotomy through the vagina, in the removal of pus sacs, in the removal of septic dermoid cysts, and many, many times in the removal of ectopic sacs, and in the removal of hemor-

rhoids and rectal polypi. I have found it to give me some satisfaction in work in the abdomen in the class of cases in which ligation is undesirable, namely, soft tissue, edematous tissue, necrotic tissue and septic foci.

"In transforming the current one may use either a liquid transformer and coil or an ordinary motor transformer; or one may employ a galvanic cautery battery with the reostat. As to the expense, I have found that I saved in the first four months I had the instruments what my ligature material would have cost me. So far as the patient is concerned, not only is the method superior under the circumstances in which it should be used, to application of ligatures, but the stumps are painless."

The paper of the evening, on

THE PHYSIOLOGICAL FUNCTION OF MENSTRUATION AND THE PART PLAYED THEREIN BY THE FALLOPIAN TUBES,

was read by Dr. J. Riddle Goffe. The avrious theories to account for menstruation and an interesting historical sketch were presented. The rut of animals was considered an analogous function to that of menstruation. The process in woman is regarded as analogous to the moulting of birds, the shedding of hair and horns by the deer, and the shedding of leaves by a tree. All the processes of life go in circles, determined more or less completely by the environment. All quadrupeds as well as bipeds, experience a physiological function similar to menstruation, but the secretion does not appear externally in all of them. The appearance of the discharge in bipeds is due simply to posture, gravity bringing the discharge to the surface of the body. The same processes go on in quadrupeds, but on account of the position of the uterus it is retained in that organ, reabsorbed through the lymphatics into the blood, and finally consumed in the vital processes or eliminated through the excretory glands. In the native state wild animals experience a rut once a year, but domesticated animals, probably due to their environment and more luxurious care and keeping, experience the phenomena, or analogous phenomena, more frequently. The monkey has been observed to menstruate five times a year, and the cow to have vaginal discharge at intervals of about three weeks. The monthly recurrence in woman is thought to be due to her environment and the result of civilization and its attendant luxuries. Life under these circumstances becomes more artificial; every factor in life is sought as a source of pleasure, and the race becomes more sexually inclined.

Menstruation is usually defined by the best authors as a monthly hemorrhage. The speaker offered the following definition: Menstruation is a frustrated attempt on the part of Nature to reproduce an individual of the species. The external sign of this is the menstrual discharge. Its *raison d'etre* was described as follows: An ovum is thrown out from the ovary and gradually finds its way toward the uterus. Nature at once begins preparations for its reception; the nervous system becomes exalted to a high degree of functional activity, the blood supply to these parts is increased; the endometrium, which is the soil in which the ovum is to be implanted, becomes turgid, soft, and velvety; its epithelial cells swell and multiply, and every preparation is made to nourish the welcome guest and give it a home. If, on its way, the ovum has been fructified it is ready to respond to this bountiful preparation, takes root, and grows. But if the fecundation has failed, the guest is incompetent to receive the hospitality extended and is cast off. The preparations are also eliminated; the exuberant epithelial cells are exfoliated; the delicate capillaries sweat drops of blood by diapedesis, or burst and discharge their contents; the congested and engorged glands secrete and excrete profusely, and thin mingled mass of epithelial cells, blood and mu-

cus comes away in the form of menstrual blood.

As proof that some of the menstrual discharge comes from the Fallopian tubes, two cases occurring in the author's private practice were narrated. Both patients had been subjected to vaginal hysterectomy and in each instance the ovary and tube of one side had been left in situ. In removing the pelvic drain during convalescence, the proximal end of the tube in each case was accidentally dragged down into the vagina and caught in the vaginal scar. These patients both menstruated every month after the operation, and the blood was seen to trickle into the vagina from the open ends of the tubes. These observations were continued for several months, and then, in fear of the possibility of tubal pregnancy, the ends of the tubes were sealed up. Experience in these cases seemed to establish so far as such observation can, the fact that the tube, at least in the absence of the uterus, actually performs the function of menstruation.

SELECTION.

A NEW PATHOGENIC THROAT ORGANISM.*

By B. H. Stone, A. B., M. D., Burlington, Vt. Bacteriologist, Vermont State Board of Health; Instructor in Bacteriology, University of Vermont.

The winter of 1903-4 has been characterized by a more or less general appearance throughout this State (Vermont) of cases of an acute inflammatory condition of the throat, accompanied by severe but not fatal toxæmia lasting from twenty-four to forty-eight hours and then subsiding. The cases are usually ushered in with chilliness, pain in the head and limbs, and a coryza, often accompanied with an unusual amount of sneezing. In nearly all of these cases, the tonsils have been more or less swollen, the soft palate and uvula œdematous, and in many there has been a distinct false membrane, white in color and very tenacious.

Of eighty-one of these cases which have been studied bacteriologically, forty-four have shown a membrane, but this percentage is probably too high, for the reason that the throats of most of these cases were cultured for suspected diphtheria. Of the cases which have been under personal observations the percentage of membranes have been much lower. The toxic symptoms subsiding in two days leave, in most cases, an irritable condition of the mucous membrane, which persists for some time, and in some instances the acute symptoms have been followed by great weakness. The attacks are not as far as can be noticed at present, confined to any particular age, affecting both old and young.

These cases have been variously diagnosed diphtheria, grippe, and simple cold, accordingly as the symptoms have been of varying severity, and the cases with or without false membrane production.

That they are not cases of true grippe is proven by the fact that the period of toxæmia is much shorter and that in none of them is there found the presence of Pfeiffer's bacillus.

That they are not cases of diphtheria is clear from the entire absence of an yorganism resembling the true diphtheria bacillus in the false membrane.

The remarkable fact about these cases has been the severe toxæmia coming on suddenly and lasting only a short time, and the universal appearance in the throat of a peculiar diplococcus.

The organism was first noticed by the writer during the winter previous to this one in the routine examination of cultures from

* This article appeared in the *Medical Record*, Aug. 13, 1904.

suspected diphtheritic throats. It first gave rise to some confusion, owing to its resemblance to certain very short granular forms of the diphtheria bacillus. When first noted it was confined to the cultures from a certain locality.

The following case histories, for which I am indebted to Dr. C. H. Beecher, are fairly characteristic:

Case I.—Student: when first seen complained of feeling chilly, slight pain in limbs, back, and head, and some nasal discharge and considerable soreness of the throat. He had felt chilly for the past twenty-four hours, but had had no definite chill. The pain in limbs, back, and head had appeared in the last few hours, as had the nasal discharge, which was accompanied by excessive sneezing. The throat had felt dry and gave some pain on swallowing. Temperature 102 and pulse 110. On examination the mucous membrane in throat, especially over the pillars of the fauces, tonsils, and uvula, was of dusky red, considerably darker than the surrounding membrane, and appeared œdematous or gelatinous. This condition was especially noticeable on the uvula. The inflammatory area was coated with a tenacious whitish mucus. Cultures made at this time showed the presence of a peculiar diplococcus in almost pure culture. The temperature, chilliness, and the pain only lasted two or three days, gradually disappearing, but the soreness of the throat and the depression, which was considerable, lasted about a week. Repeated cultures of the throat showed the same organism as above.

Case II.—Miss C.: Came into the office complaining only of feeling "mean" (weakness and muscular pain) and of a sore throat. On examination, the throat was congested and cedematous. There were six or eight whitish patches of adherent exudate on the tonsils and pharynx. Bacteriological examination of the throat secretions showed the same diplococcus as was found in Case I. Temperature at this time was 103, pulse 120. The next night the patient slept poorly, and the following day the throat was more painful and more œdematous, but the patches of exudate were practically the same size as on the previous examination. Temperature and pulse as on the preceding day. The throat was again cultured with the same results as before. After the second day the symptoms gradually improved. The patches disappeared and the patient felt well enough to resume work on the fifth day from the first examination. Cultures taken then still showed the pure culture of the diplococcus.

In addition to many cases of this sort, which are apparently the typical manifestations of the pathogenic effect of the diplococcus mentioned, the same organism has been met with in several cases of typical follicular tonsillitis, and in the throats of three cases of scarlet fever and in many cases of irritable throats following diphtheria. In one case of purulent meningitis, following middle-ear disease, the diplococcus was found in the meningeal pus.

The organism occurs in the secretions and exudations of the inflamed mucous membrane. It is diplococcus with its adjacent sides slightly flattened. When stained by Loeffler's stain, one or both of nearly every pair has a distinct metachromatic granule which stains very intensely. When stained with fuchsin the granule does not show. One of the pair is often smaller than the other. In preparations made from bouillon or blood serum cultures, the pairs are clumped in irregular bunches, apparently held together by some gelatinous material which does not stain. They vary from one-half to one micron in diameter, and the flattening on adjacent sides is sufficient, so that the combined diameter of the pair is but little greater than the opposite diameter of the single member.

They stain readily by Loeffler's and fuchsin, and by Gram's method, although the clear space between the members of the pair and the polar granules are best seen with the first stain. They possess no flagella, spores, or demonstrable capsule. Almost no growth occurs in gelatin and there is no liquefaction.

On an agar plate grown at 37° C. for twenty-four hours round regular colonies ap-

pear. They are white raised (pulvinate), and very tenacious, so that it is impossible to take up any of the colony without taking it all. They grow very little larger than the head of a shawl pin.

On agar streak cultures the character of the growth is similar to that on plates. The white colonies are first discrete, regular in outline and pulvinate, but gradually they coalesce along the line of the needle tract, and the result is a more or less continuous nodular growth. Growth is never luxuriant, however, and does not spread laterally far from the needle tract.

On blood serum growth is quite luxuriant, appearing first as moist, glistening, white colonies, which soon coalesce, forming a viscid, extremely tenacious skin over the whole surface of the medium. The medium is not liquefied.

On potato, growth is similar to that on serum, only less luxuriant. The potato is not discolored. In bouillon its growth forms a white stringy sediment, sticking tightly to the bottom of the tube. There may be a slight general turbidity. In litmus agar it produces no change in color. It produces nitrites in nitrate broth, does not form indol or gas or acid in glucose, lactose, or saccharose solution.

For all of these growths it requires oxygen and a temperature near 37°C. The thermal death point is between 60° and 70°.

Animal inoculations were made with the following results:

Animal No. I.—An intraperitoneal inoculation of a young guinea-pig proved fatal to the animal in five days. A seventy-two hour bouillon culture was used. The animal showed few symptoms of infection until the fifth day, when symptoms of profound toxæmia commenced and increased very rapidly, resulting in death in a few hours.. An autopsy showed a slight subcutaneous œdema, with a collection of white, viscid, tenacious pus around the peritoneal wound. Peritoneal cavity containing much semi-solid tenacious exudate, which microscopically showed fibrin, pus cells, and diplococci. Mesenteric glands were all enlarged, and showed the presence of the same organism. Blood serum cultures made from the peritoneal exudate resulted in a growth of a pure culture of this diplococcus.

Animal No. II.—Rabbit. Inoculated intravenously with an old bouillon culture. This animal died in convulsions within twelve hours of inoculation. An autopsy showed a general congestion of the viscera, especially noticeable in the kidneys and liver. The bladder was filled with dark colored, apparently bloody, fluid. Smears of liver and splenic pulp were negative. Five cultures taken from heart's blood all showed pure growth of the diplococcus

Animal No. III.—Guinea-pig inoculated with the filtrate after passing an old seven-day bouillon culture through a Berkfield filter. This animal on the second day showed an irregular pulse, and on the next day was unable to walk, staggering and finally falling over. Spasms developed, and the animal finally died in forty-eight hours from the time of inoculation, presumably as a result of the soluble poison produced by the organism in its growth in the bouillon.

Animal No. IV.—Guinea-pig inoculated subcutaneously with a young bouillon culture failed to respond.

Animal No. V.—A guinea-pig was inoculated by slightly abrading the mucous membrane of its lips and rubbing in a young culture. This experiment was negative.

Other animal experiments have been confirmatory of the results obtained from the above described inoculations, showing that the organism is variably pathogenic for laboratory animals.

The fact that the poison produced by this diplococcus in its growth is soluble, and that an attempt to isolate ptomains by Breiger's method was negative, renders it fairly certain that the poison is a true toxin.

The writer is thoroughly convinced that this organism stands as the etiological factor in the above described throat cases, even though efforts to reproduce its peculiar lesions on the mucous membrane of laboratory animals have been so far unsuccessful.

1. Because it has been found constantly present in these cases in almost pure cultures and isolated while no other organisms are constantly found.

2. Because it is not generally found in healthy throats. An examination of over two hundred cultures, made from healthy throats, have failed to show this diplococcus in hardly any case in which it could not be explained as persisting after an acute attack.

3. Because it is toxic for laboratory animals producing on serous membrane an exudate analogous to that produced in the throat, from which exudate it has been recovered in pure culture.

4. Because it produces a soluble toxin sufficiently virulent to kill animals.

5. Because its blood serum growth has a peculiar viscid character, suggesting the extreme viscidity of its exudate in the throat.

CORRESPONDENCE.

To the Editor of the Vt. Medical Monthly:

Dear Sir:—The American Medical Society for the Study of Alcohol and Other Narcotics was organized June 8, 1904, by the union of the American Association for the Study of Inebriety and the Medical Temperance Association. Both of these societies are composed of physicians interested in the study and treatment of inebriety and the physiological nature and action of alcohol and narcotics in health and disease. The first society was organized in 1870 and has published five volumes of transactions and twenty-seven yearly volumes of the Quarterly Journal of Inebriety, the organ of its association. The second society began in 1891 and has issued three volumes of transactions and for seven years published a Quarterly Bulletin containing the papers read at its meetings. The special object of the union of the two societies is to create greater interest among physicians to study one of the greatest evils of modern times. Its plan of work is to encourage and promote more exact scientific studies of the nature and effects of alcohol in health and disease, particularly of its etiological, physiological and therapeutic relations. Second, to secure more accurate investigations o fthe diseases associated or following from the use of alcohol and narcotics. Third, to correct the present empirical treatment of these diseases by secret drugs and so-called specifics and to secure legislation prohibiting the sale of nostrums, claiming to be absolute cures, containing dangerous poisons. Fourth, to encourage special legislation for the care, control and medical treatment of spirit and drug takers. The alcoholic problem and the diseases which center and spring from it are becoming more prominent and its medical and hygienic importance have assumed such proportions that physicians everywhere are called on for advice and counsel. Public sentiment is turning to medical men for authoritative facts and conclusions to enable them to realize the causes, means of prevention and cure of this evil. This new society comes to meet this want by enlisting medical men as members and stimulating new studies and researches from a broader and more scientific point of view. As a medical and hygienic topic the alcoholic problem has an intense personal interest, not only to every physician, but to the public generally in every town and city in the country. This interest demands concentrated efforts through the medium of a society to clear away the present confusion, educate public sentiment, and make medical men the final authority in the consideration of the remedial measures for cure and prevention. For this purpose a most urgent appeal is made to all physicians to assist in making this society the medium and authority for the scientific study of the subject. The secretary, Dr. T. D. Crothers of Hartford, Conn., will be pleased to give any further information.

Public Health and Marine Hospital Service—Notice of Examination.

A board of officers will be convened to meet at the Bureau of Public Health and Marine Rospital Service, 3 B Street, S. E., Washington, D. C., Monday, October 3, 1904, at 10 o'clock a. m., for the purpose of examining candidates for admission to the grade of assistant surgeon in the Public Health and Marine Hospital Service.

Candidates must be between twenty-two and thirty years of age, graduates of a reputable medical college, and must furnish testimonials from responsible persons as to their professional and moral character.

The following is the usual order of the examinations: 1, Physical. 2, Oral, 3, Written. 4, Clinical.

In addition to the physical examination, candidates are required to certify that they believe themselves free from any ailment which would disqualify them for service in any climate.

The examinations are chiefly in writing, and begin with a short autobiography of the candidate. The remainder of the written exercise consists in examination of the various branches of medicine, surgery, and hygiene.

The oral examination includes subjects of preliminary education, history, literature, and natural sciences.

The clinical examination is conducted at a hospital and, when practicable, candidates are required to perform surgical operations on a cadaver.

Successful candidates will be numbered according to their attainments on examination, and will be commissioned in the same order as vacancies occur.

Upon appointment the young officers are, as a rule, first assigned to duty at one of the large hospitals, as at Boston, New York, New Orleans, Chicago, or San Francisco.

After five years' service assistant surgeons are entitled to examination for promotion to the grade of passed assistant surgeon.

Promotion to the grade of surgeon is made according to seniority, and after due examination as vacancies occur in that grade.

Assistant surgeons receive sixteen hundred dollars; passed assistant surgeons, two thousand dollars, and surgeons, twenty-five hundred dollars a year. When quarters are not provided, commutation at the rate of thirty, forty, and fifty dollars a month, according to grade, is allowed.

All grades above that of assistant surgeon receive longevity pay, ten per centum in addition to the regular salary for every five years' service up to forty per centum after twenty years' service.

The tenure of office is permanent. Officers travelling under orders are allowed actual expenses.

For further information, or for invitation to appear before the board of examiners, address Surgeon General, Public Health and Marine Hospital Service, Washington, D. C.

NEWS, NOTES AND ANNOUNCEMENTS.

The report of the Vermont State Tuberculosis Commission is in the hands of the State printer. It will be issued early in October and presented to the Legislature.

No meetings of the Burlington and Chittenden County Medical Society are held during the summer months.

Dr. A. Lapthorn Smith of Montreal has gone to Europe for a vacation and post-graduate study.

A New Cure for Drunkenness.—A German doctor has started a theory that most drunkards can be cured by a very simple and pleasant course of treatment—namely, by eating apples at

every meal. Apples, if eaten in large quantities, possess properties which entirely do away with the craving that all confirmed drunkards have for drink.—*Chicago Medical Times.*

University of Vermont Medical Department.—The corner stone for the new medical building for the University of Vermont was laid July 5th, by Hon. John G. McCullough, Governor of Vermont. Short speeches were made by President Matthew Buckham of the University; Dr. Henry C. Tinkham, dean of the Faculty of Medicine; Dr. A. F. A. King, professor of obstetrics, and ex-Governor U. A. Woodbury, who is one of the alumni of the Medical Department. The graduating exercises occurred July 6, when fifty-five candidates received the degree of Doctor of Medicine. Those receiving honorable mention were Dean S. Drake and Thomas S. Brown of New Hampshre, Henry Raymond Biggar of New York, G. L. Closson of Vermont, and Geo. B. O'Connell of Maine. Dr. O'Connell was president of his class, and Dr. Biggar was elected valedictorian. The commencement being the one hundredth anniversary of the first in the University, was a grand affair. Many alumni and former students were present.

Paratyphoid Fever.—Dr. R. D. Keith, writing in the *Scottish Med. and Surg. Jour.* on the subject of paratyphoid fever, gives the following resume of the conclusions drawn from the investigations considered by him: (1) That there exists a disease which simulates the disease known as typhoid fever so closely that they can only be distinguished by bacteriological means. (2) That the disease is caused by an organism which exists in two varieties and which may be regarded as bacteriologically intermediate between the bacillus typhosus and the bacillus coli communis. (3) That the disease is on the whole mild and the prognosis is good. (4) That the treatment of the disease is similar to that of typhoid fever. (5) That the disease spreads in the same manner as typhoid fever, and that the same hygienic and general measures should be taken in cases of this disease as are adopted in typhoid fever. (6) That in suspected typhoid-like cases a bacteriological examination is of the greatest importance both for diagnosis and prognosis and should be made wherever it is possible. (7) That up to the present the disease must be regarded as acute general infection in which no definite local lesion has been shown to exist.

Paratyphoid fever is probably conveyed in the same manner as is typhoid fever. It is not markedly infectious. The incubation period is about fourteen days, the spots appearing from the twentieth to twenty-sixth day. Perhaps the most valuable deductions to be drawn from the investigations of paratyphoid fever is that experiments have tended to show that immune sera can be produced which have a protective power against lethal doses, not only of homologous organisms but also of organisms which are related, thereby indicating to some extent the possibility of a new line of treatment in cases of infectious diseases.

Wright, as is well known, is of the opinion that typhoid fever can be warded off completely in some cases and in others rendered less severe by injections of dead cultures. Dr. Keith suggests that the indications given by the results of the experiments on animals with protective sera n the case of bacillus typhosus and allied organisms is but the initial stage of a new curative method of treatment. This matter, however, requires further elucidation before any large definite statements can be made regarding it. Nevertheless, it may be said that the prospect is hopeful.—*Med. Record,* July 9, 1904.

The Vermont Medical Monthly.

A JOURNAL OF REVIEW, REFORM AND PROGRESS IN THE MEDICAL SCIENCES.

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Burlington, Vt., August 25, 1904.

EDITORIAL.

A New Building for the University of Vermont Medical Department.

As will be found elsewhere, the corner-stone of a new building for the Medical Department of the University of Vermont was laid July 5th, 1904. A large number of prominent people, including the Governor of Vermont, were present and great satisfaction was shown on every side at the splendid prospects of a suitable building at last for one of the most important departments of the University.

The new building will be one of beautiful appearance. It will be plain, but its size and dimensions will make it an unusually impressive building. There will be two ample amphitheatres, several large recitation rooms, two large laboratories with smaller rooms adjoining, and individual rooms for the professors and assistants in each subject. The equipment of each department will be perfect and nothing will be spared to make the facilities for teaching equal to those of any medical college in the country.

For many years the U. V. M. Medical Department has been following high standards and the results accomplished have been matters of great pride and satisfaction to the alumni and friends of the institution. Consequently everyone interested in the continuation of past successes and the further progress of the institution will take especial pride in a new modern building.

The Faculty deserve great credit for their untiring efforts for the welfare of the Department of Medicine, and in every way possible the alumni should assist and further the good work. Commendation should not be withheld, and no opportunity of speaking a good word for our Alma Mater should be neglected.

The Catalogue of the University of Vermont Medical Department.

This catalogue is the first attempt to publish a complete list of the alumni of the institution. The enormous amount of work required to produce even an approximately correct list has been realized, and until now there has been no one to undertake the project. With the recent organization of an Alumni Association, however, the matter was placed in the hands of the Secretary, Dr. Lyman Allen, and after a long period of hard, painstaking work he has produced a catalogue which is remarkable for completeness and nicety of arrangement. The large amount of data which the book contains tells eloquently of the stupendous amount of correspondence, compilation and clerical work required. Dr. Allen cannot be commended too highly for the splendid catalogue he has produced, practically unaided, and we know, aside from the personal satisfaction derived from a good product, that Dr. Allen will receive unlimited praise from the many alumni of the University of Vermont Medical Department.

The catalogue first gives a brief history of the institution. Then follows a list of all those who have ever been connected with the college in an official or teaching capacity. Next comes a carefully compiled list of the alumni of the Department by classes. All the data obtainable in regard to each alumnus is given opposite his name and the facts make very interesting reading, as it brings the alumni in close touch with each other's lives.

After the list by classes comes a geographical list showing the distribution of the alumni of the

college. This represents an enormous amount of work by Dr. Allen and impresses us furthermore with the fact that the alumni of the U. V. M. are truly scattered all over the world. There is hardly a state or country or large community that does not have a graduate of the Medical Department. After the geographical index comes an alphabetical index with the year of graduation after each name.

In every way the catalogue is a splendid piece of compilation. It is remarkably free from errors, which speaks well for the care and thoroughness used in its preparation. We congratulate Dr. Allen for his splendid work, and while there is no adequate reward for the time, labor and skill he has employed, we bespeak for him the sincere appreciation of the alumni body, who will find the book most interesting and useful. No alumnus should be without one, and we understand that they can be obtained by sending one dollar to Dr. Lyman Allen, Burlington, Vt.

EDITORIAL NOTES AND CLIPPINGS.

Late Marriages a Possible Cause of the Increase of Cancer.—An editorial in the *Polyclinic,* London, assumes that a child born after his father has lived fifty or sixty years, and passed through many attacks of gout, will not be in precisely the same conditions as one born in his parent's youth. It is surely reasonable to believe that he will in some degree inherit the tissue proclivities which his parent has acquired. Passing to cancer, it may be suggested as a primary proposition that the nearer to the cancer period in the parent a child is begot the greater is the risk that he may inherit a tissue proclivity to this cancerous process. This cancer period is that of middle age and commencing senlity. The age at which prudence permits marriage has been steadily rising among the more highly civilized nations, and it is among these that the recent increase has almost exclusively been noted. A striking incident in this connection is that among the Roman Catholics, who encourage early marriages, there is less cancer than among Protestants. This is notably the case in Ireland, as is shown by Dr. Matheson's statistics.—*Med. Times.*

MEDICAL ABSTRACTS.

Treatment of Pulmonary Edema.—Dr. Owen calls attention to the fact that, while expectorants are rationally indicated in bronchial catarrh, they are useless when administered in pulmonary edema, since the fluid is thin and in a location from which coughing cannot expel it. The clearing of the alveoli must be accomplished by the absorbent vessels, chief of which are the pulmonary lymphatics. Since these lymph vessels empty into the large veins at the base of the neck, the absorbent process is materially influenced by the venous blood pressure, which in turn depends upon the condition of the right heart, particularly the right ventricle. If, upon examination, there is found undue extension of cardiac dulness to the right, apical displacement to the left, a heaving impulse over the center of the heart, with a diminished impulse at the apex or transference of the most marked impulse to the epigastrium, dilatation of this ventricle is denoted. Distension of the jugular veins is of yet greater significance, indicative of venous obstruction. Under the above circumstances, in conditions of urgency, Owen resorts to venesection, the removal of 6 to 10 oz. of blood often affording marked relief, although in critical emergencies 15 to 20 oz. may be let at one time with safety. In the absence of phlebotomy, less pronounced effects may be obtained from leeching or free watery purgation by means of gamboge, elaterin, or jalap. Diuretics are of little use, and the condition of the heart is a positive contraindication for the employment of pilocarpine as a sudorific. Venesection should always be followed by the administration of digitalis or digitalin, strophanthus, convallaria or squill, to restore tone to the cardiac wall, since, whenever marked dilatation of the right ven-

tricle has occurred, the left is almost sure to have suffered also. None of these drugs will be found of avail, except in mild degrees of dilatation, unless preceded by the venous depletory measures.

In the experience of the author the continuous administration of alcohol in edema of the lungs is useless if not actually injurious, and is of value only as a temporary stimulant at such time as may be necessary, as, for instance, during the early morning hours when cardiac and respiratory forces are at a minimum. Atropine, ammonia, and oxygen are also logically indicated under conditions requiring stimulation. Potassium iodide has been used by Owen for its supposed absorbent effects, but without any indications of success.

Finally, attention is called to the pronounced effects often obtained in edema of the lungs by the hypodermic administration of strychnine. He does not attempt to explain this upon the ground of cardiac stimulation, since its favorable effects were observed both in slight and severe cases without reference to the presence or absence of ventricular incompetency. However, the speedy improvement and rapid clearing up of the characteristic signs following the hypodermic use of strychnine has led the author to resort to this method of treatment as soon as signs of serious pulmonary edema, due to any cause, make their appearance.—*Cour of Med.*

Treatment of Typhoid Fever.—In planning the treatment of the typhoid fever case, Dr. Carter S. Cole, of New York, considers, first, the nutrition; second, the stimulation; third, medication; fourth, antipyresis.

Peptonized milk and koumyss have been his general sources of reliance for nutrition, and with slight varations for the individual case, he orders 6 ozs. every two hours between 6 A. M. and 12 midnight, with a single feeding usually between 12 midnight and 6 A. M. Seldom are there cases in which 48 to 50 ozs. of liquid nutrition may not be given in the twenty-four hours. Water is allowed *ad libitum* throughout the disease.

When milk in any form is not well borne, the author employs some of the beef, mutton, chicken, clam or oyster broths, the white of egg and sometimes the yolks of one or two eggs.

His preference in stimulation is for good whiskey in ½ oz. doses where it is well borne and does not cause an increase in the pulse, but seems to steady and strengthen it, given after each bath; or, at least four times in the twenty-four hours. The cases which cannot take whiskey will sometimes take brandy very well, the dose being a little less; occasionally champagne can be used to advantage.

In the majority of cases the author finds that the use of 1-100 grn. of nitro-glycerin, and 1-50 grn. of strychnine, from two to four times in the twenty-four hours, beginning about the tenth or twelfth day, and keeping up the administration into the convalescent week, seems to give the heart useful stimulation and support. Where the strychnine seems to increase the nervous and muscular irritability, some other form of heart stimulant is substituted. Strophanthus is useful, and in some cases digitalis seems to be of benefit.

Aside from meeting special indications the author uses no drugs at all. At the outset the intestinal canal is thoroughly cleansed, usually by a dose of calomel followed by a saline cathartic; after this seldom if ever is it necessary to use any catharsis at all, the bowels being moved either daily or every other day by the use of a simple enema.

In cases in which hemorrhage threatens, or is present, 1-6 grn. of silver nitrate is given every three, four or six hours, or even as often as every two hours in individual cases. The author has not hesitated to follow this practice in the high-fever type, where considerable intestinal dsturbance seems to threaten. In cases in which there is much diarrhea he uses a powder of pepsin, 5 grn.; bismuth subnitrate, 15 grn.; sodium bicarbonate, 15 grn.; and powdered opium, 1-6 grn., and repeats this powder after every second movement. He does not recall ever having used the powder more than twice in twenty-four hours, or more than one-half dozen

times in the same patient. Abdominal distention has been a rare exception in his cases, but when it has been present it has seemed readily to yield to the use of turpentine stupes externally and 10 to 15 drops of spirit of turpentine internally, three or four times in twenty-four hours. In convalescence, and sometimes even in the third week of the disease, quinine in 5 grn. doses twice, or even three times, in the twenty-four hours seems to act as a good tonic. More especially is this true in cases which have previously had a distinct malarial history.

It is comparatively easy, says the author, to reduce the temperature by any of the many coal-tar products, but it is not so easy to restore tone to the heart muscle and to the intracardiac ganglia after they have been assailed by such cardiac depressants. Consequently, he practically never uses the coal-tar products in the reduction of temperature; but resorts to either the tub bath or the sponge. Frequently, he says, a slight rise will follow the bath, although this is later followed by a fall in temperature; a decidedly favorable impression is made upon the nervous system and upon the skin, added water is furnished for the system to consume, with increased elimination of waste products both by the skin and by the kidneys, and in a measure the advance of temperature is checked.

His experience with the Brand method has not been as satisfactory as with sponging, which he follows systematically. For temperatures up to and under 102° F., tepid sponging twice a day; up to and under 103° F., tepid or cold sponging three or four times a day. Up to and under 104° F., four times a day, and over 105° F., every two or three hours.—*Med. News,* July 23, 1904.

BOOK REVIEWS.

Obstetric and Gynaecologic Nursing. Second Edition, thoroughly Revised. By Edward P. Davis, A. M., M. D., Professor of Obstetrics in the Jefferson Medical College and in the Philadelphia Polyclinic. 12mo volume of 402 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Company, 1904. Polished Buckram, $1.75 net.

This book of four hundred pages consists of lectures delivered to the nurses of the Jefferson and Philadelphia Hospitals. It is divided into two parts, "Obstetric Nursing," and "Gynæcologic Nursing," together with an appendix on dietary and preparation of surgical supplies. The book is very practical and certainly will prove useful to all trained nurses.

Nervous and Mental Diseases. Epilepsy and its Treatment.—By William P. Spratling, M. D., Superintendent of the Craig Colony for Epileptics at Sonyea, N. Y. Handsome octavo volume of 522 pages, illustrated. Philadelphia, New York, London: W. B. Saunders & Company, 1904. Cloth, $4.00 net.

This work by Dr. Spratling is the first complete treatise on Epilepsy since the appearance of Echeverria's work published over thirty-three years ago, and represents the practical experience of Dr. Spratling as Superintendent of the Craig Colony for Epileptics at Sonyea, N. Y., during a period of ten years. The great progress made in the knowledge of Epilepsy and its treatment during the past fifteen years demanded an accurate and careful work which would include these latest advancements. Of particular interest are the chapters on the Psycologic and Medicolegal Aspects. An entire section is devoted to the all-important seizure type—Status Epilepticus; and Treatment, general educational, medical, and surgical, is discussed with wisdom, thought, and conservatism. The subject is bountifully illuminated by the citation of illustrative cases. General practitioners, as well as those especially interested in Epilepsy, will find the book of great value.

The writer divides his cases of epilepsy, as follows: Group I, including the epilepsies

common to the infantile period, from birth to the end of the third year:

1. Infantile inherited epilepsy, with a similar and a dissimiliar heredity.
2. Infantile accidental epilepsy.
3. Infantile traumatic epilepsy.
4. Infantile idiopathic epilepsy.

Group II embraces the causes of epilepsies common to childhood, and period of early life from the 4th to the 29th year:

1. Accidental epilepsy, including all cases due to infectious fevers, peripheral irritations and cerebral palsy.
2. Traumatic epilepsy.
3. Developmental epilepsy.
4. Idiopathic epilepsy.

Group III embraces all epilepsies in which there were no convulsions prior to the twentieth year:

1. Accidental epilepsy.
2. Toxic epilepsy.
3. Traumatic.
4. Idiopathic.
5. Senile epilepsy.

The chapter on seizure types is interesting. The author describes regular and irregular forms of each, and mentions grand mal, petit mal, psychic Jacksonian, serial attacks, reflex epilepsy, epileptic equivalents, partial epilepsy, tetanoid epilepsy, hystero-epilepsy and myoclonus epilepsy.

The sequelæ of epileptic convulsions include such varied conditions as tongue scars, scars of scalp and face, burns, hæmorrhagic extravasations, fractures, dislocations, exhaustion, paralysis and rise of temperature.

Concerning the pathology of epilepsy, the writer concludes that epilepsy is a disease state of the sensory elements o fthe cortex, and that the impulses constituting the discharge phenomena are transmitted over other than ordinary motor paths. The elements of the cortex most seriously involved are certain sensory cells of the second cortical layer, some of which are destroyed during the epileptic process.

The majority of observers in the chemical pathology of epilepsy, believe that blood, sweat, urine and gastric contents are hypotoxic in the inter-paroxysmal state of epilepsy; hypertoxic just before and just after the fit.

In treatment, institution methods are advised; of drugs, when bromides are unsuccessful, Flechsig's opium method, borax, nitroblycerin, chloretone and urethan may be used in certain cases, and solanum carolinense and simulo are of decided value.

MANUAL OF MATERIA MEDICA AND PHARMACY. Specially designed for the use of Practitioners and Medical, Pharmaceutical, Dental, and Veterinary Students. By E. Stanton Muir, PhG., V. M. D., Instructor in Comparative Materia Medica and Pharmacy in the University of Pennsylvania. Third Edition, revised and enlarged. Crown octavo, 192 pages, interleaved throughout. Bound in Extra Cloth, $2.00 net. F. A. Davis Company, Publishers, 1914-16 Cherry street, Philadelphia, Pa.

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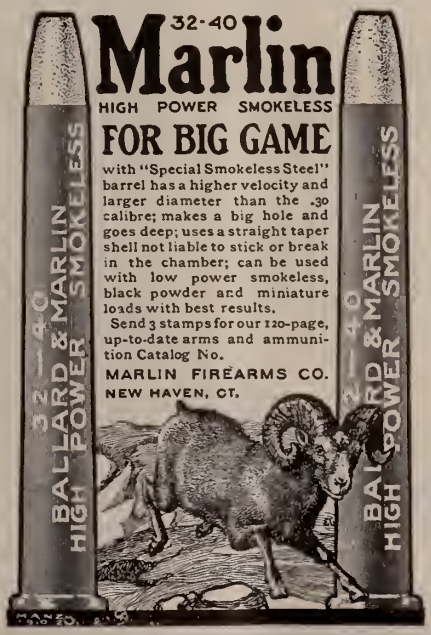

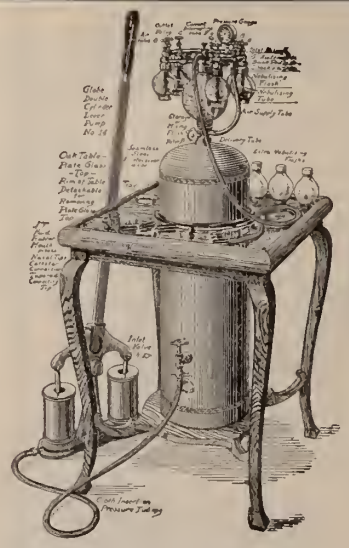

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Vermont Medical Monthly

Official Organ Vermont State Medical Society.

Vol. x. No 9. Whole No. 117. } Burlington, Vt., Sept. 25, 1904. { $1 per year. Single copies, 15 cts.

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The Vermont Medical Monthly

Vol. X. September 25, 1904. No. 9.

ORIGINAL ARTICLES.

A CASE of SARCOMA of THE THYROID

By Bern D. Colby, A. B., M. D., Sudbury, Vt.

Under *Tumors of the Thyroid,* Sajous's Annual and Analytical Cyclopaedia of Practical Medicine, Vol. VI., p. 409, reads as follows:

"Roger Williams, in an analysis of the primary tumors under treatment at four large metropolitan hospitals during a period of from ten to fifteen years, found that of 7,294 cancers only 7 originated in the thyroid, and of 1,266 sarcomas only one started in this situation. A careful search in literature by Tippany and Lanier enabled them to find records of only 16 cases of sarcoma of the thyroid. Of these 4 were doubtful. It appears generally to occur in patients well above 40 years of age. Usually the growth is spindle-celled, but may be round-celled or mixed. Not one of the cases in the tables of these writers survived the operation, undertaken usually for the relief of dyspnoea, for more than a few days."

The fact that few cases have been reported and that sarcoma is usually a disease of early life are my reasons for reporting the following case:

In January, 1902, while treating another member of the family, Mrs. F. T. consulted me regarding an enlargement on her neck which had attracted her attention for ten or eleven years. Examination revealed simply a diffuse enlargement of the thyroid such as is found in ordinary parenchymatous, non-cystic goitre. She was born in Canada, came to Vermont in early life and lived in Cornwall and adjoining towns of not high altitude since. The heart was not rapid. The eyes were rather prominent naturally. I saw nothing more of the patient until October 19, 1903, when I was called in to see her. The family history was not as full as one might wish. She lost a sister advanced in age a year before with a "bunch in her stomach which the doctor said was floating kidney." Another living sister gives evidence of carcinoma of the body of the uterus. Diagnosis was made from miscroscopical scrapings from the endometrium. This I learned from the family, and not the physician and cannot be taken absolutely.

The patient was 67 years of age and had always been strong, never having had any serious sickness except pneumonia some six years before. The thyroid enlargement had given no particular trouble excepting the weight and disfiguration. Up to within ten days she had been as well as usual. At that time she went on an excursion to Montreal and did a good deal of walking. Since she returned she had had no appetite and food did not digest well. On moving about she became very short of breath, felt weak and had a feeling of discomfort in her neck. She did not complain of pain in her neck, but of discomfort as from pressure. Examination revealed a firm, smooth enlargement on each side of the trachea, but on the right side it was much greater than on the left, extending to the anterior border of the sternocleidomastoid muscle. The mass moved with the trachea in swallowing. Back of the sternocleidomastoid on the right was a round, smooth nodule 2 or 3 centimeters in diameter. It was slightly tender. The pulse was 120, small, irregular. There was a systolic murmur heard best at the apex. There was no bruit in the tumor itself. Two days later I saw her again. Her appetite was less. She was unable to sleep, partially from pain, partially from restlessness. The heart, under the influence of digitalis and rest, was 100 and more regular. The neck symptoms remained about as before. Oc-

tober 25 the tumor had enlarged from above downward and toward the right from the trachea, the left side being unchanged. The distance around the neck over the tumor was 38 centimeters. The left eye protruded markedly, the pupil was dilated to two or three times the size of the other eye. Pulse 100, regular. From now on the mass in front of the sternocleidomastoid enlarged rapidly and became diffused into one with the nodule behind the muscle, finally reaching nearly to the vertebral column behind. Upward it extended to the lobe of the ear and mastoid process, downward to the clavicle, where its border felt notched as it extended in front of and behind it. It interfered with circulation, respiration and deglutition. Toward the last the enlargement extended to the left of the trachea, but not to the extent that it did to the right. The distance around the neck became 42 centimeters, when it became stationary, the enlargement taking place then principally from above downward. As the pressure on the cervical nerves increased she had "fainting spells," which glonoin usually relieved. This from the family, as I never saw her in one of them. As dyspnoea increased she sat in a chair or was bolstered up by pillows in bed. Sleep was only in naps. Her diet became liquid and only a small quantity of that. At times she raised from her throat by hawking or gagging, sometimes by vomiting, a dark, bloody, gelatinous substance which to the naked eye looked very much like the portion of the tumor later removed from the tumor mass externally. Examination of the throat revealed nothing. Some days the left eye would resume its normal position with the pupil normal. She did not complain of change of vision. The ophthalmoscope revealed nothing, only the vessels appeared very small. The heart lost its rapidity, coming down to 90 regular beats per minute and the murmur diminished. (Possibly the first rapidity was due to dilatation from over-exertion on the Montreal trip). On December 16 she was sitting up, struggling for breath. In a desperate effort to get air, she rushed for the door, falling into the arms of attendants. They got her to a couch, but life was extinct—death resulting from suffocation.

Only a partial autopsy was allowed. I secures some of the tissue six or seven centimeters from the median line. Cutting through the skin and platysma I came to a dark shining mass. On section it was nearly as friable as blood-clot. A specimen was sent to a pathologist, who reported, "Microscopically: pigmented, large, round cell sarcoma." My post-mortem was so limited that I could not find out if there was ulceration into the pharynx or esophagus, nor the full extent of the tumor mass.

Treatment was iodine, protonuclein, digitalis and codeine.

CERTAIN FORMS OF PERICARDITIS WITH EFFUSION.*

By H. Edwin Lewis, M. D., Burlington, Vt.

Pathologic conditions of the pericardium are by no means as uncommon as might be inferred from the infrequent diagnosis of these conditions during life. It is true that the symptoms referable to pericardial involvement are many times completely overshadowed by those of the primary diseases which caused it, but with due care and investigation pericardial lesions can be detected in the majority of instances during life. Examination of the heart is too often a perfunctory matter and so cursory in its technique that it can give little or no information of value. When pericarditis does occur, however, it is so invariably in connection with certain diseases, notably acute articular rheumatism, pneumonia, pleurisy and Bright's disease, that the diagnosis of these diseases alone should always prompt more than routine examination of the heart and contiguous structures. In children under fourteen, pericardial involvement should be anticipated in almost every case of acute articular rheumatism, for it does occur to a certain degree in the great majority of cases. Likewise in extensive pleurics in adults it is rare that the pericardium escapes from some degree of in-

*This article appeared in the *Medical Record* for Sept. 24, 1904.

volvement, though the symptoms may be obscured or ill-defined. But if pericarditis is looked for it will be found much more frequently than is commonly supposed, and its occurrence will not be due to the imagination or zealousness of the seeker. Search for any condition with a definite knowledge of what one is seeking for will prove successful many times, when an aimless investigation would be fruitless and pass unnoticed the most significant signs. It is true that pericarditis may exert little or no influence on the ultimate outcome of the disease it complicates, and the therapeutic management of a pneumonia, a pleurisy or an attack of articular rheumatism, may not be changed by the detection of pericarditis, but there is an infinite amount of satisfaction in knowing all that can possibly be known about a patient's condition, aside from the confidence, advantage and precautionary measures that come from such complete knowledge.

There are certain symptoms of pericarditis that occur with a fair degree of constancy, but none of them are subjective. A patient may have pain, pericardial distress and tenderness, dyspnoea, etc., but these may all be absent even in the presence of the most extreme inflammation of the pericardium. The diagnosis must be made from the physical signs alone. The most constant symptom is the so-called friction murmur. In 75 per cent. of all cases of pericarditis an epicardial sound of some character can be determined. I say of some character, for while different writers describe it as grating, squeaking, rubbing or rasping, the significant feature is that it is an adventitious double sound, to and fro in its occurrence, and with no relation to the diastolic or systolic sounds of the heart itself. It is heard in one place with greatest intensity, and it is not transmitted in any direction. Its character or intensity can frequently be changed by having the patient take a full breath and holding it while pressure is made with the stethoscope. Rarely, a peculiar sensation or thrill can be felt by the fingers when pressure is made between the fourth, fifth or sixth ribs one to two inches from the sternum. Where practical and the heart's rate can be slightly increased by exercise the friction sound will be of shorter duration but with less interval between its to and fro sounds. It will be sharper and more clear cut.

If the pericarditis goes on to effusion, and it usually does in children, the friction sound grows imperceptible or nearly so and a train of symptoms ensue which makes the conditions more easily recognized. The area of cardiac dulness increases in its lateral dimension and the apex beat becomes less apparent and soon disappears. In children, bulging of the intercostal spaces soon becomes noticeable and the distention may show itself at the xiphoid angle. Marked dyspnoea and distress are evident and the patient often complains of severe sensation of fulness in the epigastrium. A peculiar feeling of faintness very similar to that occasioned by palpitation of the heart is frequently described by the patient. The pulse may become feeble and irregular, but often has a peculiar throb or kick to it, followed by several weaker beats. The patient may get very cyanotic, but the face instead of being blue looks red and congested.

In this stage pericarditis is usually easily diagnosticated, and careful, thorough examination ought never to fail to detect the true condition. The absence or deflection of the heart impulse, markedly increased heart dulness, more particularly laterally, more or less muffled heart sounds, especially at apex, pronounced dulness to the right of the sternum in the fifth interspace, which increases in are by having patient lie on right side, and a wavy impulse felt in the fifth or sixth interspace, makes a fairly constant picture of pericarditis with effusion.

The following case is especially interesting, because of its etiology and course. C. B., male, eight years old, had the misfortune to pull a tea pot full of boiling tea over on himself. A severe burn of the left forearm and left chest and side resulted. The area on the chest was oval, being 6¾ inches wide and 9½ up and down. It was diagonally located and covered a considerable portion of the anterior chest wall. The accident occurred about 1 P. M., but I was not called until past 8 o'clock in the evening. The little fellow was suffering severely

and had a temperature of 102.4. I dressed his burns with a soothing ointment and gave him a hypodermic of 1-12 of morphine, which controlled his pain nicely. The next morning I saw him and dressed his burns. His temperature was 99.2 and he had little or no pain. For the next five days he got along well, but on the sixth day about noon he commenced to vomit and complain of a severe pain in left side as low as the seventh rib. His respiration was 38 to 42, pulse 120 and temperature 101.5. The respiratory movement on the left side was diminished. Physical examination was absolutely negative, but I feared a pneumonia. An ⅛ of morphine controlled his pain. I saw him again at 10 P. M. and found him free from pain, but in every other way just as he was at noon. I fancied that there was some dulness behind, but there was no friction sound whatever. The heart sounds were normal. The next morning at 9 A. M. there were marked evidences of pleural effusion and there was a line of absolute dulness up to the fourth interspace. Respiration was 36, pulse 120, and temperature 100.6. He had no pain, but his respiration was very much embarrassed. The heart sounds were normal. On my next visit I went prepared to aspirate, and finding an increase in the amount of fluid, I tapped him in the fifth interspace and drew off nearly a pint of serous fluid. He received a good deal of relief from the tapping and went to sleep shortly afterwards for the first time in nearly b8 hours. At 9 P. M. the effusion was rapidly filling in again and had reached the fourth rib. The next morning, which was the sixth day, I found the little fellow in very bad shape. His respiration was very much labored and his skin was fairly purple. The pulse was 128, regular but abrupt in its character and with much increased tension. Temperature was only 100. The dulness reached to the third rib and extended nearly two inches to the right of the sternum. There was no apex beat and the heart sounds were so feeble that they could just be heard. I tapped the pleural cavity and withdrew again more than a pint of fluid. There was considerable relief, but not as much as at the first time. The dulness on the left side cleared up, but the heart sounds still kept muffled and the apex beat was still absent. The dulness to the right of the sternum from the fourth to the sixth interspace left no doubt in my mind and I felt convinced that a pericardial effusion was present. The burn on the boy's chest was so located that there was no opportunity to do a paracentesis anywhere on the left of the sternum, but the indication was so evident, his respiratory dulness was pitiful and he was so cyanosed that I did not believe he would last many hours without a very great change in his condition. With his parents' consent and a rather gloomy prognosis, I passed an aspirating needle into the right of the sternum at the fifth interspace, with a direction inward, upward and backward. Although I pushed it a considerable distance I did not get any fluid until it passed in nearly three inches. Then I was able to draw off between 8 and 10 ounces of a cloudy, brownish fluid. The relief that was obtained was one of the most remarkable things I ever have witnessed. The cyanosis cleared at once, his respiration dropped to 26 to 28 and lost its labored character and in every way he showed that he was much more comfortable. I left him at noon, after giving directions that he was to be given a teaspoonful of Epsom salts in two teaspoonfuls of water every hour until he had had six to ten movements from the bowels. Shortly after 8 P. M. I saw him again and found him resting comfortably, respiration 30 but fairly good, pulse 104, temperature 100. His bowels were moving freely, but he was bright and cheerful. There was no dulness above the fifth rib and the apex beat could be seen. The heart sounds were not muffled, but there was a peculiar exocardial sound that I can only describe as a sucking noise. It was a single sound and came sometimes at ditstole, but more often just after. When the patient took a full breath and pressure was made the sound disappeared entirely. From now on the boy made a good recovery and paracentesis of the pericardium or of the pleura was not necessary again. He was kept on syrup of hydriodic acid over a month. One year after his heart was normal and free from all evidences of heart trouble. His burns healed nicely.

I have searched carefully but I can find no instance reported where a burn on the chest was followed by either pleurisy or pericarditis, but this case shows that both these complications must be considered as possibilities in chest burns.

Pericarditis as a terminal affection in Bright's disease is of importance clinically only in so far as it hastens an inevitable fatal termination. It is almost always insidious in its onset and course, and may be detected only at autopsy. The symptoms are more liable to be obscured in Bright's disease, from the pyrogenous conditions that usually occur late in this malady, but careful examination will give valuable information in regard to the pericardium.

Pericarditis when present is often responsible for sudden death in the course of Brght's disease, and two such cases have occurred in my experience.

In very young children, pericardial disease is very apt to assume the plastic form without the development of an effusion. Adhesions follow and the infant may drag a miserable existence for several months or a year and finally succumb to inanition. A case of mine with extensive pericardial adhesions was very interesting, for I had an excellent opportunity to study it both ante and post mortem.

A. D., male, aged four months, a bottle-fed baby, was a weakly child from birth. For one month a great deal of diarrhea and was never able to digest its food properly, though its diet had been carefully regulated by a capable physician of Boston. I saw it at a time when it was particularly bad and was struck by its old man face. The baby was fairly quiet, but it gave a little hoarse cry from time to time. It did not cough, but for nearly three months it had been hoarse. There was no trouble in swallowing and the baby was hungry all the time. The extremities were purple and cold. The rectal temperature was 100, but the pulse was so rapid that I could not count it. The lungs were clear and respiration was about 44. The heart was very much increased in size and there was only one distinct sound. No murmurs could be heard. The abdomen was considerably distended. Treatment really offered little hope, but I was able to help the bowel condition somewhat. Otherwise the condition of the child did not change, but it managed to live one month and several days after my first visit. I was allowed to perform an autopsy and found tabes mesenterica. The heart was nearly as large as that of a six-year-old child and was firmly adhered on its under surface to the pericardium, which was in turn firmly bound down to the diaphragm. The valves were fairly competent with exception of the mitral. Where the pericardial surfaces were not adhered there were large numbers of small tubercles. The lungs and other organs in their gross aspects were free from evidences of disease.

I cannot help but feel that a good many cases with similar history to this case would show marked involvement of the pericardium if autopsies were to be performed, and further I believe that the majority of all cases of this disease occurring during the first five years are tuberculous in their origin, and that tuberculosis is especially prone to attack the pericardium during this period. Every autopsy that I have ever seen of infants dying from tuberculous disease justifies this conclusion.

In pneumonia, pericarditis is a frequent complication and some authorities go so far as to say that the pericardium seldom escapes in left side pneumonia. I am not prepared to believe this, but I do not doubt that pericarditis occurs more often than is generally known. That it is a serious complication in pneumonia, goes without saying, but it cannot be avoided and calls for little treatment. Its detection is valuable as affecting the prognosis.

At this point it may be well to speak of the frequent association of pericarditis with endo- and myo-cardial disease. In acute rheumatism when the pericardium is attacked the endocardium rarely escapes and the muscle itself may be seriously involved. This shows the paramount need of complete rest in all cardiac lesions complicating rheumatism, for we never know how extensive the damage may be.

In conclusion, let me say just a word in regard to treatment. The pain of pericarditis can often be relieved promptly by dry cupping or by counter irritants over the side of the painful region. Absolute rest in as prone positions as possible is the most important regulation. Antirheumatics are useless, and nothing approaches the value of Epsom salts in large and often repeated doses, always administered in saturated solutions. Heart tonics and stimulants are contra indicated unless there is evidence of cardiac failure. Then strychnine in full doses is the best. When effusion takes place and the conditions are not alarming, it is always safe to wait, for it is often remarkable how rapidly improvement may take place by natural processes alone. When the effusion increases to an alarming extent and the patient grows rapidly worse, paracentesis is the thing to do and the only thing. Under aseptic precautions and carefully done, insertng the needle at that point in each individual case most favorable from the conditions, paracentesis is far less dangerous than to let the patient continue two hours longer in his extremely precarious condition.

THE ANTAGONISM OF STRYCHNINE AND ALCOHOL*.

By J. M. French, M. D., Milford, Mass.

Few remedies are more frequently prescribed in combination to meet a single indication, or in alternation to combat the same diseased condition, than strychnine and some form of alcohol. In pneumonia, in typhoid fever, in diphtheria, it matters little what the disease may be, if the patient is exhausted, if the heart is overtaxed, if the respiratory centers are unduly burdened, if the fever runs high, or if the vital forces are sinking and heart failure and collapse are threatening, the favorite prescription of most physicians is strychnine and whiskey. The well-nigh universal assumption seems to be that both these agents are stimulants, that each adds to the effect of the other, and hence that both aid in securing the desired result.

The question which I wish to consider is whether these things are so. Do strychnine and whiskey belong to the same class of remedies? Do they in fact work together to a common end, or are they, on the other hand, contrary in their action, and opposed to each other in the effects which they produce? In short, is the combination so frequently made, of strychnine with some form of alcohol, whether given in the same prescription, or in alternation to meet the same indication, either scientific or practical?

In order to decide this question, let us briefly consider the actions and effects of the two drugs, both separately and combined.

Strychnine, in small or moderate doses when taken continuously to keep up the effect, increases the appetite and improves the digestion, deepens the respiration, slows the heart, raises the blood-pressure, renders each of the special senses more acute, keys every nerve and muscle to its highest pitch, exalts the functions of the spinal cord, and makes the mind act more clearly and easily.

In somewhat larger doses, it causes a feeling of restlessness, accompanied sometimes by trembling of the limbs and stiffness of the neck and jaws, and occasional muscular twitchings and startings. A slight touch may now bring about a violent movement, and a sharp sound or a current of cold air may be sufficient to cause a sudden start.

If the dose is sufficiently large, these symptoms are speedily followed by others, or the more serious effects may manifest themselves with little or no preliminary warning. The head is drawn back, the lower jaw becomes rigid, the pupils dilate, the muscles contract painfully, and the face is drawn up into a hideous grin, which is known as the risus sardonicus. These symptoms are quickly followed by attacks of tetanic spasm, in which the body is bent backwards until it rests upon the heels and the head, in the condition known as opisthotonos. The legs are extended and rigid, the feet everted, the arms bent and the hands clinched, the eyes wide open, fixed, and staring. Dependent upon the size of the dose and the susceptibility of the patient, death may ensue in a few minutes, or the convulsions may pass off for a time, only to be repeated once and again, until the strength of the patient is finally exhausted, and death ends the unequal conflict; or in some cases the vital forces may finally triumph, keeping up the processes of life until the poison is eliminated, and recovery ensues.

The action of alcohol is best considered in four stages. In the first, there is paralysis of the vasomotor nerves, with resulting dilatation of the capillaries, increased flow of blood to the heart, and increased action of the heart. This is the so-called primary stimulant action of alcohol on the heart, but it really the result of exhaustion, paralysis and dilatation, and can in no proper sense be considered as a true stimulant action.

In the second stage there is paralysis of the power of muscular co-ordination and self-control, usually beginning in the extensors. The man in this stage is very careful about the way in which he puts down his feet, and experiences more or less difficulty in walking a straight path.

* This article was published in the July issue of *Merck's Archives.*

This stage is often accompanied by vomiting, which is but another indication of the relaxing and depressing effect of the drug upon the gastric nerve centers.

In the third stage there is paralysis of the higher centers of thought and will, leaving the man at the mercy of his emotional nature. His speech becomes affected, his conversation wild and rambling, and he may become on the one hand maudlin and ridiculous, or on the other violent and dangerous, according to the bent of his lower impulses. In this stage there is a distinct fall of temperature.

The fourth stage brings with it paralysis of the organic centers of sensation and motion, gradually deepening into insensibility. The individual is now "dead drunk." His condition is well expressed by the slang of the street, "He is paralyzed." If the absorption of alcohol continues, even the centers of circulation and respiration, which hold out longer than any others, become paralyzed, and death ensues.

If now we compare the effects of small and moderate doses of the two agents upon the different organs and functions of the system, we find that while strychnine increases both the acuteness and the range of vision, alcohol decreases both, and also lessens the acuteness and accuracy of color perception. Strychnine adds to the sensitiveness of the hearing; alcohol lessens it, and renders certain keys inaudible or indistinguishable. Strychnine renders the sense of smell abnormally acute; alcohol lessens the ability to distinguish odors and causes many abnormalities of smell. Strychnine increases the acuteness of the sense of touch, and also of muscular resistance. Alcohol makes the touch defective, lessens the ability to distinguish heat and cold, rough and smooth surfaces, increases the distance at which it is possible to distinguish between one point and more than one, and lessens the delicacy of the power to estimate weights. The taste is affected in a similar manner, bitters and acids being more prominent after the use of strychnine, less easily distinguished after that of alcohol. Tea buyers find themselves unable to determine the taste and quality of tea as readily after the use of alcohol as without it. The muscular sense is also increased by strychnine, and notably lessened by alcohol. It should be noted, however, that in nearly all of these cases the apparent effect—that is, the effect as judged by the feelings of the individual—of the use of small doses of alcohol, is to increase the acuteness of the faculties which a careful use of the experimental methods shows to have been diminished; thus furnishing another instance of the deceptive, illusive, paralyzing effect of alcohol.

If we go on to compare the action of the two drugs upon the power of muscular co-ordination and self-control, upon the centers of thought and emotion, and finally upon the will, we shall find that the same general principle holds true as to them all; namely, that the effect of moderate doses of strychnine is to stimulate, strengthen, vitalize, each organ and faculty; while that of alcohol is to relax, cut loose from restraint, and paralyze each and every one. It is true that if toxic doses are employed, the final result is the same in each case, only attained by a different path. It is, however, only in therapeutic and moderate physiological doses that we are considering the comparative action of the two drugs as antagonistic.

Another method of demonstrating the opposing effects of strychnine and alcohol, and one which has been forced home upon my mind by my own professional experience, is found in the results of the modern methods of treating chronic alcoholism. As illustrative of these facts, I cannot do better than to summarize certain paragraphs giving the results of my own experience, the substance of which has already been published in various journals.

The most important of the drugs employed for chronic alcoholism is strychnine. Its well-known properties point the way to its use in this disease. It is the most powerful nerve tonic known to the medical profession. It acts upon the entire nervous system, but with a special tendency to the spinal nerves and the cardiac, respiratory, and vasomotor centers. It not only renders the mind more clear and active, but even

seems to strengthen the will power. It increases intestinal peristalsis, and aids elimination. Briefly stated, its basic action is almost exactly antagonistic to that of alcohol. It is a tonic and true stimulant, as opposed to an anesthetic and a paralyzant.

The system of the inebriate is relaxed in every part, paralyzed in greater or less degree, unable to carry on its functions properly. Mentally and physically, the drunkard is dull, nerveless, incapable. The essence of his condition is, that he has lost the power to control himself. He lacks the vigor and endurance that once were his. His mind is dulled, and his moral sense is weakened.

It is in such a condition as this that strychnine has its proper field of action. By its use the tissues are revivified. As a part of its effect, every nerve and muscle is keyed to its highest pitch. The mind acts more clearly, and the man is raised out of his soddenness and indifference. The world takes on fresh colors, and life assumes a new interest. The feeling of depression and inability gives way to one of lightness and elasticity. The terrible craving for alcohol, the dull, horrible gnawing at the stomach, that fearful, all-gone sensation, which, in the drunkard's previous experience was only to be relieved by more alcohol, now begins to grow less and soon disappears entirely, while in its place there comes a sense of well-being, of elevation, of ability, of the power to accomplish, which is so unlike that false sense of confidence which comes with the first glass of an intoxicant, and so far superior to it that the man no longer seeks to drown his grief in alcohol. His appetite for this is gone, and he no longer seeks or desires that for which but yesterday he would have periled body and soul. All these effects have been brought about by the action of strychnine in antagonizing those of alcohol.

These convictions were formed as the result of several years of special experience in the sanitarium treatment of alcoholism, and have but been deepened by the observations of similar effects in private practice during the years that have followed.

As specially illustrating the counteracting effect of the two drugs, I recall the case of a man who was a hard drinker and possessed of an ungovernable appetite, and who yet had left enough manhood and ambition to be anxious to be free from his bondage. He was undergoing treatment by the tonic method, the main element in which was strychnine, while at the same time he was allowed to drink as long and as much as he desired, in the belief that this method would produce the most satisfactory results. It was perhaps largely my experience with this patient that led me afterwards to modify this plan, and assure every patient that the less whiskey he drank, and the sooner he got through with it, the better it would be for him, and the more satisfactory would be the final result of his treatment. For three weeks this man continued to drink to excess, notwithstanding the fact that he "could not keep it down." In fact, while the sickening effect produced by apomorphine was especially well marked, the antagonistic effect of the strychnine, upon which alone is any reliance placed for a true curative action, seemed not to be in any way manifest. At the end of this time I said to him that I should be obliged to taper off his whiskey, and withdraw it wholly in three days. No sooner was the whiskey reduced than the effects of the strychnine were made manifest, and at the end of the three days his desire for whiskey was entirely gone. The next day he still had no desire for liquor, and the following one he could not have been driven to take it. Nor has he ever, from that day to this, either drank or desired to drink any more alcohol, though ten years have now passed, and he has been for several years the liquor officer of his town.

As illustrative of the practice of which I have spoken, of prescribing these incompatibles together, Dr. N. S. Davis, in the "Clinical Review," quotes a case related by C. Hamilton Whitford in the *British Medical Journal*, of a woman having an inoperable pelvic cancer compressing the rectum, for which he performed transverse colotomy. The patient's pulse was weak for some days after the operation, and in-

termitted once or twice in a minute, being only steadied by liquor strychniæ in 5-minim doses, given at first hypodermically and then by the mouth. During the first fifteen days she had 365 minims and in the next forty-nine days 1470 minims, making 1865 minims in sixty-four days. At the end of that time she returned to her home in the country. During the nine weeks she had also taken daily 8 ounces of brandy and ¾ grain of morphine at night. At no time did the strychnine produce any toxic symptoms. The gist of this statement is found in the closing sentences. As Dr. Davis remarks, the case was apparently reported for the sole purpose of showing the unusual tolerance of long-continued large doses of strychnine, while no heed is given to the fact that such toxic tendency was quite accurately antagonized by the 8 ounces of brandy and ¾ grain of morphine each day. Doubtless had the strychnine and morphine been omitted, and the same dose of strychnine continued, toxic and even fatal effects would speedily have developed.

I conclude, then, that the keynote of strychnine is stimulation, and that af alcohol paralysis; that the two are in their main therapeutic effects directly opposed, and that their conjoint use is an absurdity. Whatever virtues alcohol possesses—and it certainly has some valuable ones—do not come from any effect as a stimulant, and whatever benefits may result from strychnine are not observed when it is used as an adjuvant of alcohol.

ADMINISTRATION OF CHLOROFORM AND ETHER—COMPARATIVE NOTES OF THE TWO DRUGS.*

By Thomas J. Strong, M. D., San Francisco, Cal., Contract Surgeon U. S. Army, General Hospital, Presido, San Francisco, Cal.

So much has been written, and the relative merits discussed, of the two great general anesthetics, chloroform and ether, that comparatively little remains to be said in a special way about these two well-known drugs. Still, in reviewing the literature on the subject, one can hardly help drawing the conclusion that those who favor one or the other drug in their daily practice, and who make a report of the use and effects of the same, base their knowledge on the fact that they have had more experience with one, and little or none with the other, and are therefore inclined to be partial to the one which they favor. Some reports have been made on general anesthesia from a series of only 25 or 50 cases, and although some salient point may be made clear, or a certain peculiar effect noted in either one or the other drug, still it is necessary to gain a thorough knowledge of the physiologic action of these two widely used agents, and this can only be gained by long experience with all sorts of cases.

It will not be amiss to mention the characteristics of the two drugs, and therefore a few of the more important points are given briefly:

Ether.—Pure ether is a colorless, transparent, very mobile liquid, with a characteristic fragrant odor, and a burning sweetish taste. It has a specific gravity of .725 and boils at a temperature of 37° C. (about 98° F.) It is highly volatile and very inflammable, so that it is dangerous to use near a flame, though if the latter be held high (the vapor of ether is heavy and descends), the chances of danger are lessened.

Chloroform.—Chloroform is a heavier liquid than ether; is clear, colorless, mobile and very diffusible; of a characteristic ethereal odor and a burning, sweetish taste. Its specific gravity is never below 1.49 when pure and it is not very inflammable, though it burns with a greenish, smoky flame.

Action on Economy.—The action of chloroform and ether on the human economy by inhalation varies considerably, depending on the condition and susceptibility of the patient, the method of administration, the amount given, and the purity of the drug, the first and last mentioned being particularly noteworthy.

The use of chloroform as a general anesthetic has been argued for and against by many of the most prominent men in the profession; long articles have appeared from

* *American Medicine*, Sept. 17, 1904.

time to time extolling and condemning its virtues and use; the majority of laymen are more skeptical to-day about its appearance in their homes than ether; text-books, old and new, say that there is at least one death in 3,000 due to chloroform poisoning, while the rate of mortality from ether is given in smaller ratio. Many of these arguments and remarks are made from the fact, mainly, that chloroform is so rapid and dangerous in its action; and its method of administration differs from that of ether in that where the latter may be given, and should be, with very little air, if any, the other should not and must not be given in a concentrated condition for any length of time. It is a well-known fact that a great majority of recent graduates, young physicians and surgeons, and even those more advanced in years in the profession, would much rather wield the knife than the ether or chloroform cone.

From this statement, and I believe it cannot be doubted, it is very evident why there are not many expert anesthetizers; and the cases of chloroform poisoning, at least many of them, may be attributed to the inability of the anesthetizer or to his ignorance of the peculiar drug he is handling.

On th other hand, ether is a stimulant to the heart and one of the best we have, but it is also a rank irritant to the bronchial mucous membrane and to the kidneys. It is a comparatively easy matter to hold an ether cone over or near a patient's face until the irritating effect has passed away and then clap it down over the face, hold it there, and pour ether into it, at the same time watching the breathing and color of the face. (Cyanosis is an early symptom of poisoning by ether.) I state the foregoing as being an easy matter, for I have been told so by anesthetizers and have also had a fairly good experience with the drug. Because of this it is claimed by many that ether is the "safer" drug.

At any rate, in the hands of one not skilled or experienced in its use, ether can be made to kill as quickly and easily as chloroform. The cone or chloroform inhaler cannot be put over the face and the drug poured into it for any length of time, but by careful study and knowledge of this peculiar liquid and its physiologic action, and the condition of the patient known at all times, chloroform is rendered as easy of administration and as safe and sure in its effects as ether. Chloroform is an excellent instance of the law of dissolution, for it affects the highest sensory centers first, as evidenced by the first symptoms, after a few inhalations of the drug, and also by the fact that drugs which in small doses stimulate any part, in large doses often depress it.

Not so with ether, as before stated, it is one of the best heart stimulants, but an irritant to the lungs and kidneys. It nearly always produces a nausea and vomiting, post-operative, and although many drugs are advocated to counteract this effect they are not satisfactory to any great degree. Chloroform, if properly given and not in an excessive amount, does not cause the distressing symptoms nearly so often, and the effect of the drug passes away in a shorter time than does that of ether.

Ether as an Anesthetic.—Pure ether is best administered by the use of one of the numerous inhalers, the simpler, the better. I prefer the one which I have used in this hospital, made from a common grocer's rattan or cane cuff. This is covered with shellac and allowed to dry, then covered with oiled silk, and over this gauze. The smaller end is packed with absorbent cotton to within three inches of the larger opening. A circular piece of wire splint is cut to fit snugly down over the cotton on the inside, and the cone is complete. This makes a cheap, neat, easily-made, and very convenient ether cone, and by placing the

hand or towel over the smaller end, air or not, as is wished, may be allowed to pass through the cotton. Another point with this inhaler is that it readily fits the contour of the face, making it preferable to the metallic instrument with a rubber face piece, as the latter invariably splits at the angle where the bridge of the nose comes in contact with it.

The patient being ready for etherization, the anesthetizer must, if he expects to become proficient in the art (for it is surely an art), carefully examine the patient's chest, listening closely to the heart and lungs, provided he has not already done so. An examination of the urine should be made previous to giving a genera anesthetic, and it is aways a good plan to administer strychnin sulfate .002 every three or four hours for the twenty-four hours preceding an operation, and to give a hypodermic of atropin and morphin, .4 mg. (1-150 gr.) and 16 mg. (¼ gr.) just before the anesthetic is given. The bowels should be emptied the night before and the following morning, and urine voided or drawn, also in the morning preceding the operation.

The next thing of importance is to ascertain if there are any loose teeth, gum, tobacco or other substance in the mouth, and having removed such, if any, and being fully satisfied as to the condition of the patient, about 15 or 20 grams of ether are poured into the inhaler and the patient told to take long deep inhalations. The cone is held from 6 to 8 inches from the patient''s face; if held any closer the vapor is very irritating, and even when held a foot from the face I have seen many patients cough and choke and ask to have the cone taken entirely away. After a moment or two the effect will wear away slowly and then the cone is brought down to the face and held tightly. A few words of assurance or a joke, work wonders. The patient is told to breathe deeply, and soon, along with continued winking and blinking of the eyelids, the face becomes flushed, the imagination becomes excited, and a feeling of general warmth and comfort is experienced. Then the mind becomes confused and the senses of sight and hearing are stimulated. The patient sees lights or objects and hears all kinds of noises. This stimulation is very transitory and he soon begins to lose consciousness. The motor functions are stimulated and he begins to kick and struggle (more violently under ether than chloroform). In the early part of this stage he may laugh or cry, talk or sing incoherently. The pulse is generally increased, as are the respirations.

This stage, known as that of stimulation or excitement, passes imperceptibly into the second, which may continue to be full of excitement in some cases, though soon the motor functions are paralyzed, there is loss of sensation and the reflexes, the pulse is lessened and respirations become more regular, though less frequent and strong. This is the proper stage at which to operate, as the patient cannot feel pain and the reflexes are so lowered that the heart will not be affected by shock. The third stage is one of total abolition of reflexes and complete paralysis of motor and sensory tracts, pupils are dilated, the breathing generally regular, though deep and stertorous. This is the stage of danger, and at the first exhibition of cyanosis the ether should be withdrawn and fresh air allowed to be inspired. Experience has taught me that the second stage is the one to keep the patient in and never to allow cyanosis to appear; as may be summed up in a word or two, it is unnecessary —for by watching the pupils (a *very* slight reaction to light is a good sign), heart and respirations, one can keep the patient at this point with comparative safety by careful attention at all times. The anesthetizer can, by glancing at the field of operation, ascertain when the operation is about finished and stop the

drug, without giving more than is needed. The after-effects of ether have been mentioned; they are well known—the retching, nausea and terrific vomiting, nearly always one or more of the three, or all of them, often occurring. I have seen stitches torn from abdominal incisions, and once hemorrhage from the nose and mouth due to violent straining and vomiting.

The Method of Giving Chloroform.—The patient is thoroughly examined, as in the preceding manner. The simplest and most serviceable inhaler is the Esmarch, with which all must be more or less familiar. Enough, say 20 or 30 drops, is placed on the inhaler and the latter held near the face, the patient being told to take long breaths. Two inches or less is the best distance to hold the inhaler, as plenty of air is then allowed to mix with the vapor. In one or two minutes, by dropping on enough chloroform to moisten the gauze well, a sense of numbness and tingling is experienced in the limbs, and a "buzzing" sound in the head. These are invariably the first effects of the drug and very quickly are followed by incoherent speech or motor excitement, though the stage of excitement is not nearly as marked in chloroform narcosis as in ether. There may be some struggling, but the duration is always short and the efforts more feeble than in ether. The patient has also the sensation of light and hears noises. Some of the most curious ideas imaginable are expressed under the effects of chloroform. As mentioned before, the highest functions are the first stimulated and are quickly depressed, at the same time the motor functions are excited. The pulse is increased in frequency and there is throbbing of the vessels in the neck. The pupils usually dilate widely within the first two or three minutes, but soon contract.

As the second stage is reached there is quickly a loss of consciousness and the patient appears to be in a deep sleep. The cardiac and respiratory apparatuses are depressed, especially the latter; the vasomotor center is depressed and blood-pressure falls. *This* is the time to operate in chloroform narcosis and is the proper condition to keep the patient in at all times. If deeper narcosis is produced danger is imminent. If this degree of anesthesia is lessened the reflexes are bound to return and the patient commences to kick and squirm about, making it oftentimes embarrassing to the operator.

The third stage is one of profound narcosis, even the lowest reflex centers of the cord are depressed, and all muscular tone is abolished. If this continues the pupils contract to pin points and then become widely dilated, probably on account of commencing asphyxia, and the respiratory movements become slight and irregular; the lower jaw drops, allowing the tongue to fall back into the pharynx; the heart beat is small and irregular, the blood-pressure gradually falling to zero. There is a fall in body temperature of about one degree in chloroform narcosis, and even lower in ether, due to capillary dilation and fall of blood-pressure. Commissions have from time to time been appointed to investigate the cause of death from chloroform narcosis, and some have reported the failure of the circulatory center as the cause, while others have reported the failure of respiratory centers. (See report of the commission appointed by the Nizam of Hyderabad.) It has been shown conclusively that death in the healthy animal is always due to respiratory failure, but is accompanied by circulatory depression severe enough to cause death, and it is my experience that in every case, with one or two exceptions in which poisoning, slight or severe, has occurred in man, not followed by death (for none has yet occurred) the depression of the respiratory center was always first, and followed, it is true, by rapid depression of the circulatory apparatus.

Hare and Thornton, after a painstaking ser-

ies of experiments, believe chloroform to be safe for the majority of patients, provided it be given by one skilled in its use, and who not only *knows how to give it,* but also *knows how to detect signs of danger.* Following are a few noteworthy points that I follow closely and believe to be valuable guides to the administration and effects of chloroform for anesthesia: 1. Don't give too much chloroform. 2. Watch the pulse with finger on left or right temporal artery; it is easy. 3. Watch respirations carefully; see that they are regular and not *less* than 16 to the minute—better to have 18 or 20. 4. From time to time raise the upper lid of either eye quickly; note the amount of contraction of pupil, if any, and mobility of the eyeball. There should be a very slight contraction of the pupil in the proper degree of anesthesia, but a rotary motion of the eyeball means that a few more drops of chloroform should be given. 5. Do not keep the head in a vertical position, but turn to either side; it is much easier to give the anesthetic, the lower jaw does not fall, allowing the tongue to drop backward, and with the forefinger placed above or at the angle of the jaw, one can push the latter forward and keep it there. There is also an opportunity to brace the inhaler against or close to the face by putting a towel along the under surface of the face, thus keeping the inhaler fixed, allowing one to watch the respirations, the left eye, and pulse of left temporal artery (if head is turned to the right.) It also allows mucus and saliva to run from the mouth instead of having to wipe it out of the posterior pharynx.

The position of the head has proved of great benefit and help to me for the past year and a half, and is always used when possible, being an important factor in the successful administration of anesthetics in this hospital to-day.

In concluding, I desire to state that this article has been written, and the notes taken, from a series of 769 cases, extending from July 1, 1899, to May 1, 1900, and from January 1, 1903, to June 30, 1904, divided as follows:

July 1, 1899, to May 1, 1900.		
Number of cases of anesthesia...		368
By ether	252	
By chloroform	116	
Total	368	368
Jan. 1, 1903, to Dec. 31, 1903.		
Number of cases of anesthesia...		211
By ether	75	
By chloroform	136	
Total	211	211
Jan. 1, 1904, to June 30, 1904.		
Number of cases of anesthesia...		190
By ether	6	
By chloroform	184	
Total	190	190
Total number of cases		769
By ether	333	
By chloroform	436	
Total	769	769
Number of deaths, rate of mortality	0	0

Many more etherizations were made from July, 1899, to May, 1900, for the reason that I was a recent graduate and had the idea which is in vogue to-day by a great many, namely: That ether was and is the safer drug—in fact, I did not know chloroform very well. Having read many articles on general anesthetics, perused carefully the statistics and reports of authorities on the subject, and consulted text-books on surgery, materia medica and chemistry, I resolved to give chloroform for operative work exclusively, when, of course, it was not distinctly contraindicated, and to study its effects and results; to obtain the best method of administering it, and to note the after-effects in the cases in which it was possible. In summing up, then, from these 769 cases, 333 of them etherizations, and the remaining 436 chloroformizations, a fair comparison has been obtained as to the merits of

these two widely known drugs—the two greatest general anesthetics in use by the medical profession. Taking it for granted that ether is a safe drug to use, why is not chloroform, when properly used, just as safe?

Agreeing with Hare and Thornton, and other well-known authorities, and from a personal experience long enough to establish facts, and in seeing its use thoroughly demonstrated, it is my firm conviction and opinion that, when used properly, never allowing the patient to reach the danger limit (which can be reached with ether as well), keeping at all times complete control of yourself as well as the patient, using as little as is absolutely necessary, thoroughly understanding the physiologic effects of the drug, and ability to treat accidents or emergencies should they arise, chloroform anesthesia is as easy to produce and maintain and is as safe to the patient as is anesthesia with ether. The results obtained are more satisfactory than by ether; it is quicker in action, easier for the patient to inhale, motor and sensory effects are as complete, and recovery is far more rapid.

The after-effects of ether, as has been stated, are often very distressing, while the majority of patients, under this report at least, who have been given chloroform were not nearly so depressed, and vomiting and nausea were eliminated in many.

The average amount of ether given was 160 gm. The longest sustained etherization was 1 hour and 40 minutes, the patient consuming 400 gm. of ether. The longest sustained chloroformization (operative) was 3 hours and 20 minutes and the amount of chloroform used was only 150 gm., with 40 gm. of ether. The shortest period of anesthesia was for manipulation of a joint, and 10 gm. of chloroform was used. The average quantity of chloroform used in over 150 operations was 40 gm., and I have compiled statistics from personal experience which show that in all operations not involving the face (for it is more difficult to give anesthetics in cases involving the region), it is not necessary, as a rule, to give more than 35 gm. to 45 gm. in operations of less than an hour. It must always be borne in mind that one must give undivided attention to his work when giving an anesthetic, whether it be chloroform or ether, and if attention to details is observed, and the progress of the case followed closely, there is no reason why chloroform as a general anesthetic should not be used as frequently and with as few dangerous results as ether.

RESPIRATORY TRACT: AFFECTIONS, SYMPTOMS AND TREATMENT.

By Dr. Arthur B. Smith, Springfield, O.

The average physician is frequently vexed in finding a condition which resists his best efforts to bring about a cure. This holds good in almost every disease at some time or other, but particularly in affections of the respiratory tract, where there may be a great variety of symptoms in several cases of the same disease.

Almost every physician has some favorite prescription for coughs, bronchitis, laryngitis, etc., which he uses until suddenly it seems to lose its efficacy—why, no one knows. Then another remedy takes its place until it, too, fails to give the desired result. It is rarely that one finds a cough remedy which will be consistently good in the majority of cases. Theoretically there appears to be a well-founded objection to the use of cough syrups in general, but nevertheless there are times when nothing else gives satisfaction; therefore, the physician pins his faith to that remedy from which he and his patients derive the most good. It is not always easy to find such a remedy, but when it is once found, it is equally difficult to dispense with, and often the physician is almost compelled to resort to a routine treatment. In such cases, of course, he wants the best.

There are constantly being placed on the market new formulas for affections of the air passages. Some of these formulas are of undoubted benefit in some cases, but usually it will be found that the results are far from satisfactory. Many of them cannot be taken when there is any gastric complication, as is sometimes the case, because of consequent nausea and vomiting. Others seem almost invariably to act as cardiac depressants and are highly objectionable for that reason. With the advent of heroin, however, these disagreeable features have, to a great extent, been avoided. Heroin, in the vast majority of cases, can be tolerated by even the most sensitive stomach, and, if any disturbance should occur, it can easily be obviated by decreasing the dosage and then gradually resuming the previous amount. Heroin can be prescribed, in cases which are complicated by an enfeebled heart, without danger of depressing effects. As compared with codeine, its sedative action on the respiration is much more powerful. The fatal dose of heroin is said to be one hundred times the efficacious dose, while with codeine the efficacious dose is one-tenth of the fatal dose. In other words, heroin is ten times safer than codeine, and can be given in much larger doses, if necessary, without danger. It appears to exert a specific action on the center of respiration without causing disturbances of any other organs or centers, and there is no danger of acquiring any habit by its use.

In phthisical patients the well known lack of appetite and intolerance of various foods render it imperative to give remedies which will not in any way interfere with the digestive functions, while at the same time controlling or alleviating the cough and other distressing conditions.

Some time ago my attention was called to a preparation composed of a solution of heroin in glycerine, combined with expectorants, called Glyco-Heroin (Smith). Each teaspoonful of this preparation contains one-sixteenth grain of heroin by accurate dosage. It is of agreeable flavor, therefore easy to administer to children, for whom the dose can be easily reduced with any liquid, or by actual measurement. It possesses many advantages not shown by any other preparation I have used, and has none of their disagreeable features.

In citing some of the cases treated with this remedy I shall not go into a minute description of any case, but briefly state the conditions which existed and the results obtained, which were uniformly good.

Case 1. S. B., aged 16. Caught a severe cold while traveling. This developed into an unusually severe attack of bronchitis with mucous rales, pain, cough, and some slight fever. Prescribed Glyco-Heroin (Smith) one teaspoonful every two hours, decreased to every three hours. After a few doses were taken there was a decided improvement, the respirations were slower and deeper, the expectoration freer and the temperature normal. In a few days the patient was practically well and able to return to school. No medicine except Glyco-Heroin (Smith) was given and the results from its use were excellent.

Case 2. W. L., aged 31. Acute bronchitis. Painful cough, with difficult expectoration, particularly when in a reclining posture. Glyco-Heroin (Smith) in teaspoonful doses every three hours gave speedy relief and a cure was effected in a few days.

Case 3. S. W., aged 60. Chronic bronchitis. Had coughed for years, with expectoration of a thick, yellow purulent and very offensive matter. Had lost flesh gradually until about 20 pounds below usual weight. No appetite, very constipated, pains all over chest, night sweats and insomnia. Patient on the verge of nervous prostration and greatly weakened. She was given bromides, a tonic, and Glyco-Heroin (Smith), the latter in the usual dose at intervals of two hours. The first doses were not well borne, as they seemed to cause some nausea, but by giving a smaller dose and then gradually increasing it, tolerance was soon obtained, and the results were remarkable. The cough and expectoration greatly decreased, the appetite improved and the patient became much better in every way. The treatment was continued as before, except that the Glyco-Heroin (Smith) was given every three hours. In three weeks the patient was eating almost everything she pleased and sleeping well. The night sweats had stopped, together with the cough, and, as the patient expressed it, she "felt like another woman." At present she is in perfect health and needs no medicine except an occasional laxative.

Case 4. B. E., aged 26. Severe bronchitis accompanyng an attack of influenza. Various remedies were tried in this case, with negative results, until Glyco-Heroin (Smith) was given

in teaspoonful doses every three hours. In a short time decided relief was obtained and the cough stopped permanently.

Case 5. R. L., aged 6. Capillary bronchitis with pains over chest, cough and difficult expectoration. Glyco-Heroin (Smith) administered 15 drops every three hours. After taking a few doses the condition was much improved, and a speedy return to perfect health followed.

Case 6. W. H., aged 5. Whooping cough. Spasmodic paroxysms of coughing, sometimes being so severe as to cause vomiting. Tenacious mucus was present, requiring great expulsive effort to loosen it. There was little fever, but the patient was much prostrated and weakened by the cough. Glyco-Heroin (Smith) was given in 10 drop doses every two hours with good results. This was combined with hygienic treatment, the patient being given as much fresh air as possible. In a few days the condition was much ameliorated, the cough under fair control, expectoration was freer and easier to raise, and convalescence uneventful. The case was discharged cured and there were no unpleasant sequelæ, the patient at present being in perfect health.

Ninety-first Annual Meeting of the Vermont State Medical Society.

The 91st annual meeting will be held at Rutland, Oct. 13th and 14th, 1904. Following is the Program of Proceedings:

OFFICERS.

President—W. N. BRYANT, Ludlow.
Vice-President—P. E. McSweeney, Burlington.
Secretary—GEO. H. GORHAM, Bellows Falls.
Treasurer—B. H. STONE, Burlington.
Auditor—J. H. BLODGETT, Saxton's River.

FIRST DAY.

Thursday Morning, 10 o'clock.

1. Called to order by the President, W. N. Bryant, Ludlow.
2. Prayer by the Chaplain.
3. Reading of Records by the Secretary.
4. Report of the Committee of Arrangements. S. W. Hammond, Chairman.
5. Reports of Officers and Delegates:
   Secretary, Geo. H. Gorham.
   Treasurer, B. H. Stone.
   Board of License Censors. Chairman, Henry Janes.
   Necrology. Chairman, M. H. Eddy.
   Legislation, Chairman, W. N. Platt.
   Delegates to the Medical Department of the University of Vermont, Dartmouth Medical College, and to the different Societies.
6. Obituary of W. M. Huntington. J. B. Wheeler, Burlington.
7. Obituary of F. W. Carpenter. F. C. Liddle, Dorset.
8. Obituary of William F. Lazelle. O. G. Stickney, Barre.
9. Obituary of Dan P. Webster. Geo. H. Gorham, Bellows Falls.
10. An experimental study of the movements produced in the stomach and bowels by electricity. G. G. Marshall, Wallingford.
    Discussion opened by L. H. Gillette, Wilmington.

Adjournment.

Thursday Afternoon, 2 o'clock.

1. Introduction of Delegates from other Societies.
2. Vice-President's address. Extra uterine pregnancy. P. E. McSweeney, Burlington.
   Discussion opened by C. W. Bartlett, North Bennington.
3. Diseases of Children. D. C. Hawley, Burlington.
   Discussion opened by Wm. Linsey, Montpelier.
4. Surgery of the Stomach. John C. Munro, Boston.
   Discussion opened by H. C. Tinkham, Burlington.
5. Acute Articular Rheumatism. L. W. Burbank, Cabot.
   Discussion opened by C. M. Campbell, Rochester.
6. Prevention of Tuberculosis. O. M. Douglass, Concord, N. H.
   Discussion opened by H. D. Holton, Brattleboro.
7. A clinical demonstration of what can be accomplished in certain cases of Chronic Rheumatic Arthritis Deformans. C. W. Strobell, Rutland.
   Discussion opened by E. H. Martin, Middlebury.

Meeting of House of Delegates at 5 p. m. in the Parlors of the Berwick House.

Thursday Evening, 8 o'clock.

President's Annual Address. Epidemic Influenza as an etiological factor in certain diseases. W. N. Bryant, Ludlow.
Discussion opened by C. S. Caverly, Rutland, J. B. Wheeler, Burlington.

The Annual Banquet will be held at the Berwick House at the close of the evening session. Ladies Invited.
D. D. Grout, Waterbury, *Anniversary Chairman.*

SECOND DAY.

Friday Morning, 9 o'clock.

1. Report from House of Delegates.
2. The Serums and Animal Extracts in our Therapy. Geo. F. B. Willard, Vergennes.
   Discussion opened by J. F. Blanchard, Newport.
3. What can preventive medicine do to safe-guard the middle ear against acute and chronic infection. Francis P. Emerson, Boston.
   Discussion opened by C. F. Camp, Barre.
4. Scarlatina vs. Rubella. Ellis G. Roberts, Fair Haven.
   Discussion opened by H. C. Ide, McIndoes Falls.
5. The Specific Treatment of Typhoid Fever. J. M. Hackett, Champlain, N. Y.
   Discussion opened by C. E. Chandler, Montpelier.
6. A Radical Cure of Cancer of the face, with report of cases. E. J. Melville, St. Albans.
   Discussion opened by A. L. Miner, Bellows Falls.

7. Cholera Infantum. W. S. Phillips, Arlington.
Discussion opened by E. R. Brush, Cambridge.
8. Voluntary Papers and Reports of Cases.
Adjournment.

Thursday Afternoon.

Reception for ladies in the Parlors of the Berwick House from three to five o'clock.

Reception Committee.

Mrs. W. N. Bryant, Ludlow.
Mrs. P. E. McSweeney, Burlington.
Mrs. Geo. H. Gorham, Bellows Falls.
Mrs. B. H. Stone, Burlington.
Mrs. J. H. Blodgett, Saxton's River.
Mrs. S. W. Hammond, Rutland.
Mrs. W. W. Townshend, Rutland.
Mrs. J. H. Hamilton, Rutland.

Thursday Evening.

After the business session the Annual Banquet will be held at the Berwick House to which the ladies are most cordially invited. An entertainment will be given after the post prandial speeches.

Friday Morning.

Members and their ladies will be given a trolley ride to Lake Bomoseen and Fair Haven. Lunch will be served at "The Allen" at Fair Haven. A special car will leave the switch opposite the railroad station at an hour to be announced at the banquet.

The Officers would be pleased to see a large number of ladies present.

ANNOUNCEMENTS.

Place of Meetings—The sessions will be held in Baxter Hall, Merchants' Row, opposite the R. R. depot.

Exhibits—A large number of the leading Drug Houses, Manufacturers of Surgical Instruments and Book Publishing Firms will be present and will have the rooms directly under Baxter Hall.

Headquarters—The Headquarters of the Society will be at the Berwick House.

Railroads—Round trip tickets at convention rates will be on sale at all the principal stations on the Rutland, Central Vermont and Boston & Maine Railroads. Also excursion rates to Montpelier on the Montpelier and Wells River Railroad.

Registration—All members are kindly requested to register their names in the Registration Book on entering the Hall.

Important—All papers read at the meeting are the property of the Society and should be placed in the hands of the Secretary as soon as read.

NEWS, NOTES AND ANNOUNCEMENTS.

Recent Deaths.—Dr. A. W. Johnson, of the class of 61, U. V. M., died Sept. 19, 1904, at Portsmouth, N. H. Dr. Johnson had been an old practitioner of Kittery, Me., and was 76 years old.

Married.—Dr. C. H. Beecher, of the class of 1900, was married to Miss Florence Russell of Burlington, Vt., Sept. —, 1904. Dr. Beecher is one of the prominent young physicians of Burlington, and a host of friends wish him and his bride every success and good thing in their future life.

Change at the Vermont State Laboratory of Hygiene.—Owing to ill health, Dr. M. J. Wiltse has severed his connection with the State Laboratory of Hygiene. During his directorship of the laboratory Dr. Wiltse has proven efficient and painstaking in his labors and has made many friends. Dr. B. H. Stone, who has been the assistant director and has had charge of the bacteriological work, has been given temporary charge of the laboratory. Under his experienced direction the laboratory is certain to continue the good work it has always done.

Dr. Osler to go to Oxford.—Dr. Osler has accepted the place of regius professor of medicine at the University of Oxford, England. He will make his home in Oxford and will begin his work next spring. King Edward has approved his appointment. He is to succeed Sir John Burdon-Sanderson.

Dr. Osler has been professor of medicine and physician to the hospital of the Johns Hopkins Medical School since 1889. A Canadian by birth, and one of a family of noted and able men, he was graduated from McGill University in 1872, after which he studied in London, Berlin and Paris. For ten years he was professor at McGill University, after which he was for five years professor of clinical medicine of the University of Pennsylvania. Since 1889 he has been teaching, writing and practicing in Baltimore. He but recently went to England to attend a meeting of the Oxford Medical Society, which body had previously honored him and itself by giving him a degree.

Dr. Osler is certainly one of the foremost physicians of our time. He is a genius who has gone into the practice of medicine. His illustrious career is the logical outcome, not only of a laborious study of medicine and of many years

of clinical work, but also of a many-sided culture and of broad humanitarian instincts. He demonstrates that a great physician must be a man to whose sympathies nothing that is of human interest can be alien.

Dr. W. D. Berry, late pathologist and assistant director of the Waterbury Insane Asylum, has purchased Dr. Clarke's Lakeview Retreat at Burlington and will continue the institution as a private institution for the treatment of mental diseases. Dr. Berry is unusually well qualified for this work and will bring to his institution a large and varied experience.

Death of Dr. Finsen.—Niels R. Finsen, M. D., pioneer in scientific phototherapy, died September 24 in Copenhagen, aged 43. He was a native of the Faroe Islands. He began his work while a student in the Copenhagen University, from which he was graduated in 1890. Three years later he published an article on "The Influence of Light on the Skin," which aroused general attention because of his assertion that smallpox could be cured by the red-light treatment. This was but one application of the Finsen theory that light rays contained healing powers, and to develop the positive element of his theory he began experimenting with concentrated artificial light rays. As a result of his experiments, he effected a cure for lupus vulgaris. This cure directed great attention to the young investigator, and in 1896 the Municipal Hospital of Copenhagen allowed Professor Finsen several small buildings on its grounds in which to carry on his experiments. The Danish government then became interested in the support of the institution, and this support enabled the institute to be removed to Rosenvaenget, a suburb of Copenhagen, where under the direction of Professor Finsen, with a staff of scientists of national repute, expert electricians, and trained nurses, many cures of cases previously deemed incurable were made. In December, 1903, Professor Finsen was awarded the Nobel prize. For several years he had suffered from dropsy resulting from heart disease, but so intense was his devotion to his work that he hardly spared time from his studies for sleeping and eating, much less to recuperate his health. His death is attributable to an aggravation of the diseases from which he had suffered during his entire adult life by reason of his persistent overwork.

Amyl Nitrite in Hemoptysis.—Inhalations of amyl nitrite instantaneously arrest hemoptysis, finds Dr. Francis Hare. He has tested the action in five cases, one of mitral obstruction and four of phthisis. In every case the inhalation proved successful, and the hemorrhage stopped at once. He thinks it acts as follows: Normally, effusion of blood irritates the lung tissue, causing coughing. The strain of coughing raises the blood-pressure, inducing fresh bleeding. In this way a vicious circle is maintained, till eventually the loss of blood becomes so great that the exertion of coughing no longer causes a marked rise of pressure. Then the bleeding ceases. Amyl nitrite, by dilating the vessels, accomplishes the same effect without the further loss of blood. It is similar in its action to the old plan of treating bleeding by venesection.—*Edinb. Med. Jour.*, July, 1904.

A Scotch Doctor's Opinion.—*The Quarterly Journal of Inebriety*, so well and favorably known through the instrumentality of its brilliant and philanthropic editor, T. D. Crothers, A. M., M. D., quotes the following statement in reference to pain relieving remedies, from one of Great Britain's noted medical men, Dr. John Stewart Norvell, Resident Surgeon, Royal Infirmary, Edinburgh: "Antikamnia Tablets are a remedy for almost every kind of pain, particularly for headaches, neuralgias and neuroses due to irregularities of menstruation. They act with wonderful promptness; the dosage is small; two tablets. The undesirable after-effects so commonly attending the use of other coal-tar analgesics are entirely absent and they can therefore be safely put into the hands of patients for use without the personal supervision of the physician."

The Vermont Medical Monthly.

A JOURNAL OF REVIEW, REFORM AND PROGRESS IN THE MEDICAL SCIENCES.

H. EDWIN LEWIS, M. D., *Editor.* FRANK C. LEWIS, M. D., *Business Manager.*

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Burlington, Vt., September 25, 1904.

EDITORIAL.

The State Medical Society Meeting.

Elsewhere in this issue will be found the program of the 91st annual meeting of the Vermont State Medical Society. It will be noticed that an exceptionally fine scientific program has been arranged, and it is understood that the local committee of arrangements have spared no time or labor in preparing a hearty welcome for the visiting members. Rutland has always been noted for its hospitality and everyone is sure to have a good time.

Every physician who can possibly do so should attend the meeting and take part in the discussion of the papers. Thanks to the reorganized plan the general meetings will not be obstructed by business matters.

An unusually large number of exhibitors have signified their intention of occupying space in the exhibition hall, and this part of the meeting will also prove of great interest.

The medical men of Vermont owe it to themselves and their work to get out among their fellows occasionally for an interchange of views and good fellowship. Time thus spent is always profitable and puts us in touch with our neighbors' work to the advantage of all concerned. Let this be the banner year for attendance. A pleasing feature of this year's banquet is that the ladies have been invited to attend.

WHAT'S THE USE?

What's the use of passing along through life with a chip on one's shoulder? Life is such a wee wee thing and may be taken away from us so quickly and unexpectedly that we owe it to our own happiness, to say nothing of that of others, to use our feeble energies to the utmost in peaceful pursuits. Combat is never elevating. It never brings us closer to the better things of human existence. The same may be said of acrimonious discussions. They are always harmful to all engaged. One party may glory in winning out in a wordy war or discussion, but the triumph is hollow when measured with the beautiful things of art, science or literature that surround us everywhere, or the blessings of friendship and love.

The world needs less talk and argument, and more work and results. In no field is the need of work and actual results more apparent than in that of medicine. We have had too much discussion and theory, too much pugnacity and worthless opinions, and now it is time to buckle down, every man to his own wood pile. Let every man accomplish something in his own sphere, but let it be the product of his own brain and labor. Above all let it stand for itself on its own merits, without the props of verbiage. Let it tell its own story and prove its own worth. Such a product may be small, for opportunity does not knock with the same emphasis on every door, but the smallest product evolved in the smallest way, if it be indestructible or incontrovertible, may lead to things of undreamed worth and importance.

Nothing tangible and real is useless. In other words, created things have their place in the plan and as we pass along, each and every one of us, if we give nothing to the world but talk and discussion,—"What's the use?"

"What's the use" of fighting, reviling, criticising and hating each other, when all around us are worlds of art, science, literature, love and good fellowship which require so much less energy to explore and promise so much more enjoyment?

MEDICAL ABSTRACTS.

The *Journal of the British Royal Army Medical Corps,* December, has an editorial dealing with yeast as a therapeutic agent. Beer yeast, the product referred to, has long been known as a home remedy for boils, carbuncles, and other inflammatory conditions. According to the editorial in question, Preston and Taruella (*Revista de Med. y Cirurgia,* June 15th, 1901) were the earliest workers to adduce experimental proof of the value of yeast, the most important of their conclusions being the following: (1) Beer yeast exercises a local and general curative action upon streptococcal and staphylococcal infection in rabbits, when administered hypodermically for five to twelve days in 10 c. c. doses of a well-grown culture; (2) similar injections repeated for four consecutive days render rabbits immune to coccal infections; (3) the curative principles of yeast are intracellular and act only after liberation by a leucocytic or humoral ingestion of the cell; (4) blood serum of rabbits treated by yeasts has an agglutinating action upon streptococcus and staphylococcus albus and aureus. Yeast cultures in beef and barley medium show this same power after two days' growth and lose it when heated to 55 deg. C.; (5) mixed culture of yeast and streptococcus and staphylococcus produce attenuation of the virulence of the latter; (6) in the pus of a subject treated by yeast the pyogenic organisms decrease in number and virulence.

If a yeast be kept in a dry, but cool place, it is capable of secreting its soluble ferments after a long lapse of time; moisture and warmth alter its character rapidly, mainly by enabling the impurities to replace the true saccharomyces cerevisiæ. The results obtained by yeast in the treatment of boils and carbuncles are apparently due to its antiseptic, phagocytic, and immunizing action, not to any specific action upon particular pathological lesions. Infantile diarrhea, infective and micromembranous enteritis or dysentery have all been much relieved by the action of beer yeast.

In 1895, Cassæt recommended beer yeast for the treatment of diabetes mellitus, its beneficial action in this disease depending upon the conversion of all starchy elements into alcohol. Boigey confirms these statements.

Many other diseases are said to be much benefited by treating with yeast. The claim is not made for yeast that it is by any means a universal panacea, but it is asserted that, judging from experimental and clinical facts, it is a valuable remedy.—*Medical Record.*

STRAY THOUGHTS.

OPTIMISM.

Just a singin', just a singin,' 'cause my heart is full o' joy,
Just a bubblin' up with gladness and a grinnin' like a boy,
'Cause the world is full o' sunshine and o' happiness and love,
And the Lord is sorter smilin' down upon me from above;
And the birds are singin' love songs as they flitter and they swing
In the leafy, lazy branches,—why, I've simply got ter sing!

Just a singin', just a singin,' though my heart is bleedin' sore,
And my sorrer kind a chokes me and the laugh don't come no more.
Just a singin' though the silver's sprinkled heavy in my hair,
And the sun o' joy is clouded by the mist of age and care;

Singin' just the same as ever, though my voice has lost its ring;
Singin' just to keep my heart up,—why, I've simply got ter sing!—*A. B. Braley in Good Health.*

MERELY TO OUTSTRIP OTHERS WILL NOT BRING SUCCESS.—A great many people seem to think that getting ahead of others, like the winning of a horse in a race, is success. Nothing could be further from the truth. Outstripping others often means trampling upon their rights, and keeping them back by unfair means; it often signifies failure, not success. The mere thought of trying to get ahead of some one else is inimical to success.

Such efforts develop the brute in man. They nourish some of the worst failure-qualities, such as selfishness, envy, and avarice.

No one can succeed, in the larger sense, unless he becomes a broader and better man; but can one grow broader and better when he is actuated by the meanest of all motives—the desire to get ahead of his neighbor?

While struggling to improve ourselves, we should keep constantly in mind the idea of helping others on the way, and of making their burdens a little lighter. To throw stumbling--blocks in the way of another, to retard his progress, will bring failure in any career, no matter how much money one may make in it.—*Success.*

"Two obstacles have always been in the way of the progress of medicine: Authorities and systems. Authorities may be referred to for certain observations and thoughts, but the self-conscious man follows them only when they (the authorities) offer him a guarantee of their ability to observe and think properly, and even then only so long as their observations and ideas do not conflict with his own observations and ideas. All authority must, therefore, be a relative one only; it *may guide* our observation and judgment, it must never dictate them. . . . His own (the physician's) senses and thoughts must be his supreme, highest, authorities!"—*Virchow.*

BOOK REVIEWS.

THE PRACTICAL APPLICATION OF RONTGEN RAYS IN THERAPEUTICS AND DIAGNOSIS. By William Allen Pusey, A. M., M. D., Professor of Dermatology in the University of Illinois; Member of the American Dermatological Association, and Eugene Wilson Caldwell, B. S., Director of the Edward N. Gibbs X-Ray Laboratory, University and Bellevue Hospital, New York; Member of the Rontgen Society of London, Associate Member of the American Institute of Electrical Engineers. Second edition, thoroughly revised and enlarged. W. B. Saunders & Co., Philadelphia, New York, London.

This work reviews quite fully the literature of the subject to date, beside giving histories of cases treated by the author. The various kinds of X-ray apparatus for skiagraphy and therapeutic work, including much that is new, are well described and illustrated. The part of the book dealing with the therapeutics of the X-ray is written, mainly from a dermatological standpoint, and is especially useful to anyone working in that field.

It is not too voluminous, as is so much of our X-ray literature, but it gives the salient facts in brief, concise form. It is a decidedly valuable book.

A TEXT-BOOK OF ALKALOIDAL THERAPEUTICS.—Being a Condensed Resume of all Available Literature on the Subject of the Active Principles Added to the Personal Experience of the Authors. By W. F. Waugh, M. D., and W. C. Abbott, M. D., with the Collaboration of E. M. Epstein, M. D. The Clinic Publishing Co., Chicago. 1904.

The authors of this book state that they have long recognized the urgent necessity for a work upon Alkaloidal Therapeutics, that should be as complete as the present knowledge of the subject permits. It is a fact that those interested in this kind of medication cannot find what they want in ordinary text-books. The principal demand for a work of this kind is by the physicans in the country who carry their medicines, and it is among this class that Alkaloidal Therapeutics

is the most popular. The student, or physician who has become interested in Alkaloidal Therapeutics cannot afford to be without this book. It is well written and seems to be complete and up-to-date. The work is a large one, making over four hundred pages. It is well bound and printed on excellent paper and completely indexed. It gives us pleasure to recommend this book.

The book contains a large amount of knowledge in regard to drugs not found in any other text-book. It ought to do valuable missionary work among those physicians who are still using old, antiquated forms of medication.

NEWER REMEDIES.

Pain.—Lord Lytton said "There is purpose in pain." How true is the fact, especially from a diagnostic point, in diseases of women. Dysmenorrhea, that distressing manifestation of uterine obstruction most frequently caused by congestion, is only one of the many instances. To equalize pelvic circulation and remove uterine engorgement is the object to be attained and is best accomplished by administering Hayden's Viburnum Compound.

Dr. James Charles Copeland says in his "Medical Treatise" in chapter on Menstrual Life of Women, "For dysmenorrhea characterized by sharp, colicky pains, there is nothing better than Hayden's Viburnum Compound."

Comment on Antikamnia and Heroin Tablets.—Under the head of "Therapeutics," the *Medical Examiner* contains the following by Walter M. Fleming, A. M., M. D.,* regarding this valuable combination: "Its effect on the respiratory organs is not at all depressing, but primarily it is stimulating, which is promptly followed by a quietude which is invigorating and bracing, instead of depressing and followed by lassitude. It is not inclined to affect the bowels by producing constipation, which is one of the prominent effects of an opiate, and it is without the unpleasant sequels which characterize the use of morphine. It neither stupifies or depresses the patient, but yields all the mild anodyne results without any of the toxic or objectionable phases.

When there is a persistent cough, a constant 'hacking,' a 'tickling' or irritable membrane, accompanied with dyspnoea and a tenacious mucous, the treatment indicated has no superior. In my experience I found one 'Antikamnia and Heroin Tablet' every two or three hours, for an adult, to be the most desirable average dose. For night coughs, superficial or deep-seated, one tablet on retiring, if allowed to dissolve in the mouth, will relieve promptly, and insure a good night's rest. In short, it will be found futile to delve for a more prompt and efficient remedy than 'Antikamnia and Heroin Tablets' in all bronchial complications with laryngeal irritation, dyspnoea, asthma, winter-cough and general irritability of the thoracic viscera."

* Qualified Examiner in Nervous and Mental Diseases for Supreme Court, New York City.

Trifles as Irritants.—We are so constituted that what is occurring at the moment interests us often out of all proportion to its importance. For example, we are thrown off our balance by the merest trifles, perhaps, which occur to-day, but which, in a week's time, may have no significance whatever. Obstacles which seem like mountains, when we meet them, dwindle away to mole-hills when we get away from them.

Even what seems tragedy, at the moment, in the future may be the most innocent comedy.

Most of us are so constituted that we will make almost any sacrifice for present peace. It would seem easier to have an arm or a leg amputated two years hence than to lose a finger to-day! It is human nature to shink from pain, and we purchase release at almost any cost. If we could only train the mind to look at to-day's trouble and annoyance from the

standpoint of the future, it would be much easier to bear.

THE THERAPEUTIC VALUE OF PEPTO-MANGAN (Gude).

By Dr. Vehmeyer, Haren, Germany.

The number of older iron preparations is so considerable that it seems at first sight desirable to weed out some of them, rather than to add to the list. If in spite of this the newer preparations have gained the upper hand the cause must be sought, not in the attractions of novelty, but in the force of success. Hematogen, which is known to almost every one, has been so popularized and so extensively used that there seems to be a disposition already to value it less for its blood-forming power than for its appetizing, anti-scrofulous and roborant action.

While I am persuaded of the value of this remedy, which I have prescribed quite frequently and fully appreciate its merits, I have not been able to confirm the statements of those who esteem it on account of its being well tolerated, and have reached contrary conclusions on this point. The custom of many clinicians and experienced practitioners is not to interrupt at once ferruginous medication after the disappearance of the chief symptoms, but to continue it for some time, is in many instances impossible with hematogen. It has repeatedly happened to me, more often in adults than in children, that the patients refuse to continue the use of hematogen after taking the first bottle. They state that it is too powerful and too satiating, and this is the case, not only with irritable and sensitive persons, but those who have an energetic and resolute disposition, and who can be persuaded to resume its use, but finally manifest such a decided repugnance towards the remedy that their wishes must be gratified and another preparation substituted. In such cases I was led to resort to Pepto-Mangan (Gude), which I must credit with being much better tolerate and more agreeable. My observations extend now over a large field, comprising patients of various ages and conditions of life, so that I am able to formulate a reliable opinion of this preparation in the following conclusions:

1. Pepto-Mangan (Gude) is incontestably a blood-forming preparation, and in this respect is fully equal to every other preparation.

2. Its use is therefore recommended in all those diseases in which, through an increase of blood and improvement of its quality, a cure or a beneficial influence upon the organism is to be expected; as for instance, in chlorosis, anæmia, leukæmia, in chronic diseases of the respiratory organs, in many digestive disorders, especially after diarrhœas, and in convalescence from various diseases, especially in weak and anæmic women after childbirth.

3. Owing to its great palatability and tolerance this preparation does not require any correctives, and is adapted especially in obstinate and protracted disease, in nervous, neurasthenic, and all other persons who are unable to take other iron preparations even for a short time. In people who require iron and are afflicted with nervous dyspepsia Pepto-Mangan (Gude) is not only by far the best ferruginous preparation, but at the same time a stomachic which has a most favorable influence upon the secretory functions of the stomach.

4. Its blood-forming and in general curative properties depend both upon the direct introduction of iron and upon its power of stimulating the appetite and digestion. Owing to its fortunate composition this preparation deserves a general symptomatic employment.

5. Unpleasant by-effects are excluded.

Pepto-Mangan (Gude) therefore constitutes a valuable addition to our list of reme-

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dies. I prefer this preparation, which has never left me in the lurch, to all similar products, and am persuaded that within its field of indications it will prove of equal service to others. As regards the dose, it is advisable in general to follow the printed directions, although in individual cases it may be exceeded without the least untoward effects; for it is one of the prominent advantages of the preparation, that while exhibiting in full its curative effect, it never satiates or becomes repugnant, but permits of administration according to requirements, for a short period as well as many months, and that it is equally well tolerated by children and adults of both sexes without exciting the least aversion.

SEPTICEMIA.

By A. C. Muttart, M. D., New York City.

Believing that the following case will be of interest to you, as well as the medical profession—to you, because it proves the value of your preparation—to the physician, because it shows that our text-books sometimes err and because cases of this kind and at this stage are usually considered hopeless, I beg to submit the following report:

On June 21, 190—, I was called to see a lady who, according to the prognosis of her attending physician, could not live twenty-four hours. A subjective examination elicited the following history: Mrs. J. H., age 26, Multipara; previous health especially good; on June 5th, had been delivered of a still-born, full term, third child. For two weeks following she had experienced considerable pain through the pelvic region with two slight hemorrhages accompanied by very offensive lochia. On the 15th she had a slight chill, followed by a decided rise in temperature which had continued until, and was present at the time I was called. Objective examination disclosed a temperature of 106 1-5 F. Pulse 158, very irregular. Respiration jerky. Tongue slightly coated. Marked distension of the abdomen and bowels, constipated, no movement having occurred in several days.

It was a very clear case of Septicemia and if anything was to be done it must be done at once. Strychnine Sulp. gr. 1-30 was administered hypodermically and after cleaning out rectum and lower bowel, gave Spts. Frumenti and Ammonia per enema. The patient was then rendered as aseptic as possible and being anaesthetized (ether being the agent used) was placed in the dorsal position with hips drawn well to the wide of the table and thighs fixed and held. After a hasty digital examination placental forceps were introduced and with the assistance of the middle and index finger succeeded in removing about one-third of a decomposed placenta.

Owing to the lateness of the hour, all drug stores were closed and the only antiseptic I happened to have about my office was a bottle of Glyco-Thymoline. This being considered as better than nothing, was taken along; also some Saponi Viridi. After removal of placenta, the entire endometrium was gone over thoroughly and carefully with a sharp curette. The uterine cavity being then irrigated with Glyco-Thymoline pure, and loosely packed with gauze soaked in the same solution, as was also the vagina, my object being to obtain its exosmotic effect as well as contraction of the uterine walls. Post-operative saline enema was given at 4 A. M. and cardiac stimulants reduced.

Jan. 28th, temperature normal and remained so. Irrigation continued in conjunction with tampons of Glyco-Thymoline and Ichthyol for two weeks.

Fifteen months later the patient was delivered by me of a full term eleven pound child and enjoyed a rapid convalescence. Since then I have employed Glyco-Thymoline as an intra-uterine application in a great many cases and cannot recall one instance where it failed to prove most satisfactory.

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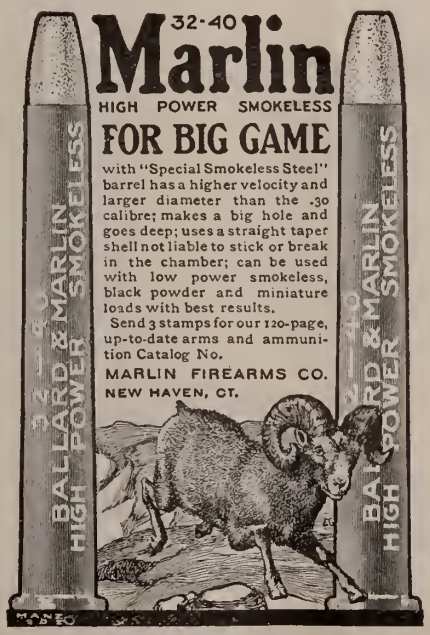

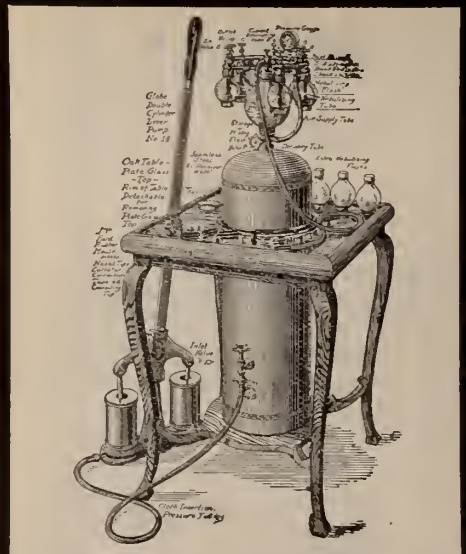

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THE

Vermont Medical Monthly

Official Organ Vermont State Medical Society.

Vol. x. No. 10. Whole No. 113. | Burlington, Vt., Oct. 25, 1904. | $1 per year. Single copies, 15 cts.

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The Vermont Medical Monthly

Vol. X. October 25, 1904. No. 10.

SOME REASONS FOR THE ESTABLISHMENT OF A STATE SANATORIUM FOR CONSUMPTIVES IN VERMONT.

By S. A. Knopf, M. D., New York City.

At no epoch in the history of medicine has tuberculosis occupied the minds of sanitarians, physicians, philanthropists and statesmen as much as at the present time. The reasons of this awakening are several. The sanitarian, through Koch's immortal discovery of the microbic origin of the disease, has learned that tuberculosis, while highly communicable, is nevertheless a preventable disease. To the physician, tuberculosis, particularly in its pulmonary form, is no longer an incurable disease, a divine visitation, in regard to which his skill is of no avail; but he knows, through the works of Brehmer and Dettweiler, of Germany; Bennet, Williams and Weber, of England; Grancher and Letulle, of France; Alfred Loomis, Trudeau, Bowditch and Millet, of our own country, that by proper hygienic and dietetic means, under constant medical supervision, even independent of special climatic advantages, the consumptive can be cured, and lastingly so.

To the philanthropist particular interest in tuberculosis has been awakened by the fact that it is shown to be most prevalent among the poor, and that dark, dreary and badly-ventilated tenements, and malnutrition, are some of the prime factors which render the poor so susceptible to the invasion of the bacilli. So by improving the condition of the poor he seeks to combat tuberculosis from the start. If opportunity is offered, philanthropists also take deep interest in the creation of sanatoria for the consumptive poor.

The modern statesman interests himself in the problem of tuberculosis for economic reasons, and it does not require great calculations to show his wisdom in doing so. The following table shows the deaths from tuberculosis in Vermont during the year 1901. From it we learn that the total number of deaths from tuberculosis during this year was no less than 513. As is usual, the greatest mortality from the dreadful disease is at the age when the individual should be a bread-winner, useful citizen, and, if possible, the supporter of a family. Thus we have from that one form of tuberculosis alone which we usually designate as phthisis pulmonalis:

43	cases between the ages of	15	and	20
53	cases between the ages of	20	and	25
73	cases between the ages of	25	and	30
41	cases between the ages of	30	and	35
41	cases between the ages of	35	and	40
26	cases between the ages of	40	and	45
38	cases between the ages of	45	and	50
315	cases between the ages of	15	and	50

This gives us 315 people taken away in the prime of life by a disease which is eminently preventable and curable.

Statistics from sanatoria show that in the early stages the pulmonary form of tuberculosis is curable in at least 75 per cent. of cases. Now, I venture to say that of those 315 peopel, at least 237 belonged to the laboring class, who had earning capacity of about two dollars a day. Through their untimely death the community must have sustained a great eco-

nomic loss, and hundreds of families probably plunged in sorrow, and not infrequently in misery and want. A large number of tuberculous invalids have doubtlessly also been for months a burden to the community, for humanity demands that the hopelessly-sick consumptive, no matter how poor, should be tenderly cared for until his end. The average consumptive, if not properly treated in time, may live from one to three years. The majority of cases are usually incapacitated for work for at least one year. The maintenance of such a patient, whether in a private home, a general hospital, or an almshouse, can not be estimated at less than one dollar a day. Thus there is an avoidable loss to either the community or the poorer classes of population of 315 times $365 a year, or $114,975.

What would have been the cost if the State would have given these people 75 per cent. of chances of cure in a properly-conducted sanatorium for the treatment of pulmonary tuberculosis? The weekly cost of a patient in one of our best conducted and most successful American sanatoria, the Adirondack Cottage Sanatorium, is $8 per week. In the equally good but more recent Massachusetts State Sanatorium, at Rutland, Mass., where the physicians are paid for their services, it is $8.40.

Taking the average, it requires about nine months to cure these 75 per cent. of consumptives in a sanatorium. But let us say even forty weeks at $8.20 per patient per week—that is to say, to cure 75 out of 100 consumptives and make them the bread-winners of their families costs $328 per patient. To let them die costs at least $365. This leaves a difference of $37, which would be one of the items of the direct financial loss of which we may know. This amounts to 237 times 37, that is to say, $8,769, which is spent *uselessly* on at least 237 citizens of Vermont suffering from tuberculosis, and with no other aim in view than allowing them to die.

But we must not forget that every consumptive not properly treated, since he can expectorate seven billions of bacilli a day, may if he is careless and ignorant, infect any number of his friends, neighbors, or whoever he may come in contact with, by his carelessly deposited sputum, and thus indirectly multiply the loss of money and lives many times over.

Now, a properly conducted sanatorium for the exclusive treatment of tuberculous diseases is not only an institution where consumptives are treated, but also one where they are trained. The patient is not only taught how to take care of his expectoration, how not to infect others or to reinfect himself, but he also will learn how to live a sober, regular and hygienic life, and will, on his return home, constitute a hygienic factor among his family, friends and neighbors. The value of such an institution to the State or a community is simply inestimable. Properly conducted, it can never become a danger to the neighborhood, but, on the contrary, a school of hygiene for whoever has lived in it, visited it, or learned to know of its workings through an immediate neighborhood.

I do not think that any further argument for the urgent necessity of creating a State sanatorium for consumptives in Vermont is needed. Through the establishment of such an institution thousands of lives will be spared, thousands of dollars saved to the State and municipal treasuries, and thousands of families will be made happy and prosperous because one of their members, instead of being doomed to an untimely death, has been given back to join them in a useful and happy life.

TUBERCULOSIS—IT'S PREVENTION.*

By Halbert Lynn Keith, M. D., Milford, Mass.

It is expected on an occasion like this that the papers read shall be upon a subject that may

* Address at the 51st annual meeting of the Thurber Medical Association, held at Franklin, Mass., on Thursday, Oct. 20, 1904.

be interesting to the ladies and gentlemen present who are not physicians. In choosing this subject, which at the present time is more talked about and written upon that at any time in the past, I have not forgotten the ladies, for it is from them I believe our great help must come in fighting this dread disease.

And it must be of interest to all for, alas, very few, if any of us, have escaped great sorrow and heartache by the loss of some one near and dear to us by the ravages of this terrible disease.

Tuberculosis, or consumption, has become so prevalent, and its ravages so terrible, that it is known as the Great White Plague. And it may be so called in truth. What sight is more harrowing to the soul, more saddening to the heart, or one that will bring tears of commiseration to the eye more quickly or more forcibly, than that of a good, bright, and beautiful young man or woman, just entering into their chosen life work, burning up, wasting away, and passing from our sight into the Great Unknown, in the clutch of this monster destroyer, the Great White Plague?

Very few realize the ravages of this terrible disease. According to the last census the per cent. of deaths by tuberculosis per 1,000 living was 18.7 in the United States. It is the same the world over. England, 13.3; Prussia, 19; Saxony, 16.8.

Tuberculosis leads all known diseases, causing from one-tenth in some localities to one-fifth in others, of all deaths. I will give you the per cent. of deaths by tuberculosis by states: Alabama, 9.6; Arizona, 6.1; Arkansas, 6.4; California, 15.6; Colorado, 8.2; Connecticut, 15.1; Dakotas, 8.8; Delaware, 16.1; District of Columbia, 18.9; Florida, 8.3; Georgia, 7.9; Idaho, 6.8; Illinois, 10.3; Indiana, 12.6; Kentucky 15.7; Iowa, 9.9; Kansas, 7.3; Louisiana, 10.4; Maine, 19.2; Maryland, 14; Massachusetts, 15.7; Michigan, 13.2; Minnesota, 9.3; Mississippi, 8.8; Missouri, 9.8; Montana, 5.6; Nebraska, 8.8; Nevada, 6.3; New Hampshire, 5.6; New Jersey, 8.9; New Mexico, 2.4; New York, 8.1; North Carolina 9.5; Ohio, 13.8; Oregon, 12.1; Pennsylvania, 12.6; Rhode Island, 14.6; South Carolina, 9.8; Tennessee, 14.5; Texas, 6.5; Utah, 2.8; Vermont, 16.1; Virginia, 12.2; Washington, 13.2; West Virginia, 13; Wisconsin, 10.4; and Wyoming, 2.6.

You can see by these statistics that the strong and deadly clutch of this relentless octopus extends into all parts of our country. No places are so warm or so cold, so wet, so dry, so high, or so low, that they are exempt.

From the glorious pine-capped hills of Maine, with her life-giving air and pure waters, to the rose-laden vales and fruitful vineyards by the blue and placid Pacific, we see the pale, gasping victims of this Great White Plague turning to us their beseeching eyes and in despairing accents begging us to do something, if we cannot for them, at least for the loved ones they leave behind them.

Tuberculosis is a disease more common in early adult life, but can be contracted at any age. It is due to the entrance into the body of a specific micro-organism called the tubercle bacillus. This germ enters the body mostly through the nose, or mouth, by respiration, or infected food, or through wounds of the skin.

They are thrown off by persons suffering with the disease by the expectoration, the spray from the breath in talking, coughing, etc.

The most important method of its distribution is in promiscuous spitting, and here, to prove how contagious tuberculosis is, I will call your attention to a few cases that have occurred in my own practice, which have impressed me as extremely sad, and which show conclusively the great danger of contagion.

Case 1. An American, a farmer, working in a shop during the winter months, thirty years of age and married. His wife was one of the most healthy, robust women I ever knew, with a perfect family history. She was a very attentive nurse, unremitting in her care, and took as much precaution as is usual in those cases in regard to the sputum and dejections.

In a few weeks after his death she developed unmistakable symtoms of tuberculosis. Frequent pulse, cough, night sweats, and fever. On examination the sputum showed the tubercle bacillus in great numbers.

Case 2. A very sad case was that of Miss B and sister. Miss B, nineteen years of age,

while attending school, in some way contracted tuberculosis and passed away in a few months, the disease running a very swift and virulent course.

There was no family history of consumption. An American family consisting of father, mother, and four children. A sister in perfect health was called home to care for her. Her devotion to this loved sister was most touching, and, although strongly advised of the danger of contagion and entreated not to, persisted in occupying the same room.

It was a matter of less than two months, but she contracted the disease and herself passed away in less than eighteen months. I can never forget those cases. Such bright and beautiful girls, fitted to adorn any position in life, and to be an ornament in any society, cut down in their youth and innocence, fading away like a beautiful lily under the rays of a too scorching sun.

Case 3. A family of Irish parentage. Both parents have always been, and are, although advanced in years, in perfect health. They were blessed with fourteen well-formed and healthy children. The most of them lived to grow up, and reaching early manhood and womanhood were as strong and healthy, apparently, as other children.

One of the first born, a boy about twenty years of age, contracted tuberculosis, and died in five months. A short time after his death, another son was taken, and after lingering a few years, also died. But before his death, another brother was stricken and died before he did. Since then two more have sickened and died with the disease.

Now it may be probable or possible that this family may have a predisposition to tuberculosis, although there is no family history to show it. Yet, granting this, the fact to which I wish to call your attention is that no member of the family that left home has had consumption, and the five that have died with it were among the strongest of the children and never left home for any length of time, but lived at home, eating and sleeping there before and during their illness, and dying there.

The house was never disinfected after any of the deaths, except the last case, which I attended and interested the family and Board of Health in the matter. I think comment is unnecessary, and you can draw your own conclusions.

Now my friends, it is to save such as this faithful wife, the loving sister, and those strong young men that we should strive to educate the people and to make and enforce laws for the prevention of tuberculosis.

It is possible and very probable that at some time, under certain circumstances and conditions, that these germs enter into the bodies of every one, but owing to robust health and pure blood, and healthy surroundings are unable to get a foothold.

But when they strike favorable soil their work is quick and deadly. Such favorable soil is found in those who inherit a predisposition to consumption, those who are anaemic, diseased, or run down from any cause, as over-work, or worry, or dissipation.

As consumption is almost always an incurable disease after it once gets well under way, it is in preventing its occurrence that we may hope to tradicate it. The old adage, "Prevention is better than cure," may as well read, "Prevention is better than death," in case of consumption.

For a number of years many eminent physicians and bacteriologists have tried to discover a cure, but no one has as yet succeeded, and to my mind the prospect that a cure for a firmly seated tuberculosis be discovered is very dim.

Therefore, it is plain that our work is to try and secure means of prevention. This is a matter for legislation, no doubt, but it is also a matter of education. You may legislate till Doomsday and unless the people are educated, taught thoroughly upon the subject, you will undoubtedly do no good, but you will fail of the grand result.

The time to educate is in youth. Commence with the children. Let me illustrate this to you by calling your attention to the Parochial Schools. Those schools are not maintained because we do not have good public schools, or good public school teachers, for we certainly have the finest. It is for the reason that the child may receive according to the Catholic mind, proper religious training while the mind is impressionable, and you all know that very

few ever forget or change the ideas they have been taught.

Now if the children and youth in our public schools were taught in a thorough manner the nature of tuberculosis and its fearful dangers, and a proper fear inculcated in their minds of its true danger of contagion, with a knowledge of its prevention and the best ways and means of avoiding its contagion and spread, it would never be forgotten, and would bear fruit later, when they arrive at an age when such knowledge is imperative and they are in a position to carry on the work.

We often have trouble in enforcing just laws of sanitation, and ninety-nine per cent., if not one hundred percent. is due to ignorance of the why and wherefore. No sane person will stand in opposition to his own or his children's welfare, and if they can be made to understand what is for their best good there will be very little trouble in enforcing just laws or in having people do as they are told by their physician or the proper authorities.

At the present time we often meet with strong opposition when we attempt to isolate consumptive patients, or send them to an institution or to a better climate. Sometimes this comes from the extra cost, but more often from the dread of separation and the thought that the patient is better off at home.

Now, if people were taught the truth and knew the terrible danger of contagion to other members of the family, also taught the great amelioration of suffering to the loved ones and the prospect of improvement and possible recovery, how different would be their attitude!

Well, you ask how this can be done! I will tell you. By beginning at the bottom, as well as at the top. First by educating the young, and second by enacting laws and building institutions.

Every town should employ a physician or physicians to give lectures in every school in town at regular intervals, not in a hall with a notice to the general public, but to the children and older students in every individual school in town, to which the parents are specially invited.

This can be done with very little expense or bother, and with no chance for failure. The main question is, how to start it. And here it is that the ladies can do much.

What new project was ever promulgated, sustained, and carried through without their help? The church societies, the different clubs, must agitate the matter, committees must be appointed to see and interest the school directors and teachers, the physicians, business men, and town officials, and arrangements must be made for such instruction to be given.

I firmly believe that in no other way can the people be made to understand the matter and be willing to co-operate with the physicians and send members of their families to institutions where they can be properly cared for, and where they will cease to be a menace to others.

I believe that laws should be passed that every case of tuberculosis should be reported to the Board of Health, that patients should be either sent to some institution, public or private, or else isolated at home from the other members of the family, the same as diphtheria, scarlet fever, smallpox, or any of the contagious diseases.

Laws against promiscuous spitting should be passed and enforced. And here arises a question as to how the law can be enforced. Possibly by reporting the janitors of buildings, conductors of cars, or any official or caretaker who does not report a case of the law's infringement.

The residence where there has a tuberculous patient lived and moved away, or in case of a death, should be as thoroughly disinfected as any other contagious disease.

I know of a public school teacher who at the present time has tuberculosis, who is expectorating, and has a daily rise in temperature. She has over forty children in her room. Could such a condition of affairs exist if the people had a proper knowledge of this subject?

A young lady patient of mine who worked in a shop, in a room with fifteen or twenty other girls, has stopped in my office on her way home from work, and I found a temperature of 104. She, at the time, having a racking cough, night

sweats, sore throat, and diarrhoea. Such was her feverish nerve energy that she continued working until a few weeks before her death.

It is a wonder to me that all the girls in that work room did not contract the disease, and I have no doubt but that the deadly germs have found lodgment in some of their chests, ready to do active work later, should their systems become weakened from any cause.

And is it not a very pleasant thing to contemplate that one may be riding in a luxurious Pullman car, gazing out upon the beautiful landscape with soulful eyes, drinking in the wonderful beauties of Nature, not realizing that possibly you may be breathing in millions of the tubercle bacillus from a consumptive who occupies the next chair?

Yet it is very few miles one can travel without encountering them.

The children understand as well as the parents that they must be vaccinated, and must avoid getting near a smallpox patient. They should be taught that if they contract phthisis they would have to be sent to an institution.

Last fall I had two cases of diphtheria in a certain house. A next door neighbor in great distress and alarm sent for his family physician and had his child injected with anti-toxin. He did this from a knowledge of the contagion of diphtheria. From ignorance of the danger of contagion from tuberculosis, that same child may be kissing and caressing a relative who is slowly dying with consumption.

Of course money must be appropriated and institutions built, and laws must be passed in regard to immigration and travel. All immigrants should be thoroughly examined and all suspicious cases deported. No tuberculous persons should be allowed to travel with the general public, but in special cars and conveyances.

But to my mind no remarkable headway will be made until we start at the right end of it, and educate the school children.

TUBERCULOSIS AND THE SANATORIUM.*

By W. N. Bryant, M. D., Ludlow, Vt.,

About one year ago, at your joint meeting held in Greenfield, I read, or rather had read for me in my absence, a paper along these lines, covering very much the same ground as the one presented today. True, it appeared under a slightly different heading, but if a rose by any other name is just as sweet, it should be equally true that the same paper under an alias may be just as tiresome. Perhaps I may be pardoned a brief explanation of this choice of topic.

My work during the past year, in connection with the other gentlemen who form our State Tuberculosis Commission, has served to keep this matter prominently in my mind and to impress me with its deep importance. In fact I believe it is not too much to say that it is overshadowingly *the* question which confronts the medical profession today, and it has now arrived at a stage when not alone the medical men, but the people—the public at large—must be invited to join in the discussion, for it involves problems which the physician unaided cannot solve.

During the past generation, the medical profession, thanks to such men as Koch, Brehmer, Dettwieller, Trudeau and others have fathomed to some extent at least, the causes of tuberculosis, and are now able to point out to suffering humanity a possible way of escape from this Terror of the Ages, this giant evil which, for countless years has been decimating mankind until it has become an absolute menace to the integrity of the race; until one in ten of our own people, unless we can change the complexion of existing statistics, is elected to be sacrificed upon its ghastly altar.

Having arrived at this point our labors indeed are not to cease, but effort is to take a

* Read at a meeting of the Connecticut River Medical Society.

different trend. Having demonstrated that God's pure air, aided by proper hygienic conditions, can cure tuberculosis, we have now to teach the people the great truth that because it *can* do so, it does not necessarily follow that it *will* do so unless proper methods in its use are observed. They must be brought to understand that while air, like salvation, is free, the necessary methods which best adapt each of them to the needs of humanity, cost something, not alone in labor and self sacrifice, but in money—are indeed expensive.

Leaving to specialists and scientists the question of experimenting along hopeful therapeutic lines, provided there are any such, our duty as practical physicians is now to act upon the theory that what is needed is not so much new facts concerning tuberculosis, as the opportunity to put in practice the facts we have already acquired; to place within reach of the vast army of sufferers which is scattered over the length and breadth of our land, the knowledge we have thus far obtained, in answer to their Macedonian cry for help. We are now to teach the people that so far as this matter is concerned, their salvation is largely in their own hands. To check the progress of this dreaded plague, in anything like an effectual manner, we must have public institutions—sanatoria—where our suffering poor when stricken with this disease may go for help, as the ancient Israelite in time of trouble fled to his city of refuge.

And just here is where the professional man must appeal to the layman. For notwithstanding the general belief that the practice of medicine is but a synonym for quick and easy affluence, the average doctor is obliged from necessity to draw the line at endowing public institutions. I make no question however, that if the profession of the state could collect the dollars they have earned by hard and honest toil, ministering to the relief of suffering humanity, they would be both able and willing to equip and endow an institution ample for our needs. But as this, unhappily, may not be, there is no other option than to appeal to the state.

To do this effectually we have to institute a campaign of education and a crusade of agitation among the people as personal and as insistent as was the preaching of Peter the Hermit when he preached the Crusades. It is true that private institutions are multiplying, and this is all right for such patients as can afford to pay large sums, but as you well know, the great mass of our tuberculous cases occur where we might as well propose a trip to Europe as to suggest a residence in a sanatorium; costing $25 per week or more.

This is why we must have state institutions, and as they can only be obtained through legislative enactment, we shall never have them until the people are brought to understand their imperative necessity. It would hardly be supposed that we need waste our energies arguing with physicians along these lines, but our Commission in its work has found it true, though, thank Heaven, in rare cases. At one of our meetings a physician present argued that it would be useless to build a sanatorium for the reason, among others, that we could not build large enough to accommodate the 2,000, more or less, tuberculous cases in our state. He was quite losing sight of the principal way in which a sanatorium benefits the people. It is by no means through the absolute number of cures obtained, but in an educational way. It is like a normal school, and its graduates, cured or uncured, have learned its methods, and upon leaving, are well instructed as to the course of life they must pursue, both in their own interest and for the protection of those with whom they come in contact. The average length of residence in the Rutland, Mass., state sanatorium is only from four to five months, and about 75% of their cases go out with the disease arrested. Some of these will relapse, while many will go on and complete a cure thus happily begun, but *all* are so instructed that upon resuming the usual relations of life they will not become a menace to others. And right here lies the logic of the whole situation,—tuberculosis is one of the most easily preventable diseases which we meet, and

if sufferers can be thoroughly taught what they must do to prevent infection, and if the people as a whole can be brought to understand the imperative need of such precautions, it is only a question of time when tuberculosis as a prevailing disease, must be wiped off the face of the earth and relegated to an unimportant place in the list of diseases.

But they do not understand, and cannot until taught, and in the meantime our country is contributing a yearly quota of 111,000 lives to satisfy this insatiable monster, 500 of which come from our own Green Mountain State! It is high time that we understood, and that the laity understood that tuberculosis is neither dealt out arbitrarily by Divine Providence, nor is it an inheritance of woe handed down from former generations, an inheritance we may not escape—*it is not Kismet.*

The fact that we could, at best, accommodate but a small part of our tuberculous patients is no argument against a sanatorium. The more we investigate this matter and the better we understand it, the more inevitably we are driven to the conclusion that the question of ridding ourselves, as a people, of tuberculosis, is a question that *must* eventually be fought out in the home.

But in how few of our homes, even the best, do we know how to make the fight and do it successfully? And in many, very many of them, the conditions are quite impossible did the knowledge exist.

If you are free from his plague yourself; if you are rich in knowledge and rich in goods; still you may not safely ignore the claims of your poorer and more ignorant neighbor who is less fortunate in this particular, for his very poverty and ignorance are a daily menace to your safety. The great and crying need of our people today in this fight against tuberculosis is not medicine or money but *education,* a knowledge of what to do and how to live, and the best, indeed we may say the only practical method of imparting this knowledge is by means of an efficient object lesson such as a modern sanitorium teaches. Such an institution to accommodate even fifty patients for a residence of a few months, could not fail to be of incalculable value, and in a few years a knowledge of the necessary requirements in the treatment of such cases would become generally disseminated throughout our various communities, and the menace of impending danger be lifted from many a household—this too, regardless of the actual number of cures obtained in the institution itself.

If any one is inclined to question the truly infectious nature of tuberculosis, or its communicability, I invite your attention to this chart. It illustrates a very limited section of New York City and was made to show the recurrenec of consumption in the same tenement and in neighboring tenements, in succeeding years regardless of the occupants. Each dot represents one case of tuberculosis that has been reported to the health board from the same tenement during the last five years. (This chart represents a short section only on three adjoining streets and shows that cases of tuberculosis have occurred in nearly every tenement, the number of cases in each one varying from one to *twenty-two.*) And in this connection you are to remember that only 50 to 75% of these cases are reported and get on the records at all, as I was informed by Dr. Lederle, Health Commissioner for the city in '03. Now although we may not find these extreme conditions outside the large cities and towns, we do find in almost every little hamlet in our broad land, these infected houses where repeated cases have occurred in succeeding years. They may be traced all over our country, through the hills and valleys of New England like the trail of the serpent, and over the door post of every such infected house should be inscribed the words found by Dante over the portals of the Inferno, "Leave hope behind all ye who enter here."

Compare tuberculosis with the only other disease which rivals it in its death rate—pneumonia. During the last decade or two both the absolute and comparative frequency of pneumonia have increased, as has also its death rate,

while during the same period the mortality from tuberculosis has decreased from 30 to 40%. What does this mean? If it means anything at all it means that the knowledge we already have and the little we have been able thus far to do with the meager facilities at our command, have already borne glorious fruitage; it means the dawning of a brighter day for the men and women of the twentieth century, the eventual triumph of science over one more enemy of the human race.

I realize, gentlemen, that I am growing discursive and will try to reform before it is too late. The particular point I had in mind when beginning this paper, was to set forth some of the reasons why the home cannot take the place of the sanatorium in the successful treatment of tuberculosis, and why, as a consequence, we need and *must* have state institutions.

The so-called open air treatment of tuberculous cases is by no means a recent idea, and antedates the discovery of the specific bacillus of this disease by nearly a quarter of a century. It was in 1859 that Dr. Brehmer, of Germany, after having been himself cured of consumption by residence in the open air, opened the first sanatorium in a crude way. His methods were modified and extended by Deitwiller, his student, and others, until today what is known as the sanatorium cure consists practically of four distinct cures: the air cure, the rest cure, the food cure and the mind cure, and it is only through a combination of these four conditions acting together that the best results can be obtained. The failure to observe any one of them may destroy the "balance of power" and defeat the desired end. Examining these more in detail we will first consider the air cure.

This does not mean being out of doors for an hour or two occasionally, and raising a window a little at night. It means absolutely living in the open air day and night, summer and winter. In the sleeping wards at the Rutland institution there is just room for a bed between the windows, which are raised the full height of the sash and so kept all the time, save a short and ears are chilled but this is accepted as a legitimate part of the treatment.

With the inherent horror which the average New England matron has of a draught of air, the ordinary home.

Next the rest cure. The failure to properly adjust rest and exercise to the individual case is responsible for many of the failures in treating these cases. Absolute rest so long as the patient carries fever, then careful exercise governed entirely by the reaction it produces. When exercise produces fever it is suspended, when a half hour produces no reaction it is increased from day to day until unrestricted exercise is allowed. It will be seen that this requires close and constant supervision by either a physician or nurse, conditions quite beyond the reach of the average patient at home.

The food cure. This is the condition which can be most nearly met in the home, but it still leaves much to be desired. The object is to get the greatest amount of proteids into the system that can be assimilated, milk, eggs and meats, and this requires that they should be prepared in a way both digestible and appetizing. The Rutland people have found that it is a matter both of benefit and economy to employ a chef at a salary of eighty dollars per month. Patients must be closely watched and regularly weighed, and food increased or diminished from time to time as found necessary.

The mind cure part of the treatment is by no means the least important, but is, perhaps, the most difficult to attain. To the average person in the average home the name consumption is one of dread and fearful foreboding. It is ignored so far as possible, and quite tabooed in presence of the patient. It is only spoken in whispers and to admit that one has consumption is to admit that he has already clasped hands with the angel of Death. This exaggerated solicitute on the part of the family, coupled with the patient's own fears, produces in the ordinary person a condition of absolute terror and melancholia which reacts most unfavorably upon his physical condition. In fact, however desirable it may be, from a sentimental view point to be

surrounded by sympathizing and solicitous friends, the whole atmosphere of home life, in a large majority of cases, is entirely unsuited to help on the sturdy fight a patient must make to shake off the grasp of this disease. In a sanatorium all this is different, the patients freely converse of their condition with each other, refer to themselves as "lungers" and generally lose that terror of the name which the home patient has. They see others improve, see them discharged with the disease arrested and thus gather courage to look for their own cure. This matter of keeping the patient in a cheerful and hopeful state of mind is most important and should not be lost sight of.

Provided that these conditions named may be satisfactorily met in the homes of the wealthy, which I cannot admit, save in exceptional cases, what of the ninety and nine who can command none of these things? The problem which confronts us today is to carry help to the great mass of sufferers who are called upon to face the inevitable outcome of this disease amid the squalor and poverty of cheerless homes.

Dr. King, in a most interesting article upon this topic in a July number of the Journal of the A. M. A., sums up as follows:

Sanatorium treatment consists of:

1. Increased sunlight. 2. Enforced rest in open air, day and night. 3. Increased consumption of proteids. 4. Accurately governed exercise. 5. Constant and unremitting medical supervision. He further adds that if these conditions can be secured at home all the better, but he has very rarely found it possible.

I agree most heartily with these conclusions. *If* the conditions *can* be met well and good, but practically it is impossible save in the rarest instances. This does not mean, gentlemen, that we can do nothing for our tuberculous cases at home, by no means. It does mean however, that we cannot do the best for them that might be done to obtain results, even with those most happily situated, and that in a large proportion of cases we can do very little indeed toward influencing the course of the disease. But even with these we may so instruct the patient and family that the latter are protected against the danger of infection, provided they are trustworthy enough to carry out instructions. But all this does not in any degree change the imminent, the absolute need of a state institution both as a curative and an educational factor in helping to rid the world of this giant evil which threatens us and those who are dear to us. Consider for a moment its economic aspect.

Cook, of Nashville, has estimated the annual cost to the United States alone, of its consumptive patients, including loss of wages, expense of sickness, etc., at $600,000,000. Prof. Biggs of New York, a very conservative statistician, places the amount at $330,000,000. Taking even this latter sum, makes the contribution of our own little state (Vermont), $1,500.000 per year. The cost of maintaining a patient in a sanatorium is about five hundred dollars a year, and the average stay is about six months. Looked at simply from the standpoint of economy, which is better, to allow a patient to die in early or middle life, when most of these cases occur, or to pay two, or even five hundred dollars that he may be sent back to live out his natural expectancy of life and to contribute his or her labor to the increase of the material wealth of the state? And this takes no cognizance whatever of sentimental questions or family ties.

These facts should be put plainly before the people and the question then asked, what are you going to do about it? The Doctor alone cannot furnish the needed help; neither the medical nor the clerical profession can force salvation, physical or spiritual, upon an unwilling soul. We can warn of the danger and point out the way of escape, and then the responsibility rests with the people themselves. It is simply a question of gold weighed against human happiness, of dollars against human life.

When we remember that a generation ago the prognosis in any given case of tuberculosis was absolutely bad, and then consider that the statistics of various sanatoria show 65 to 78% of arrested cases in the incipient stage, and 50% in the unselected cases, we should feel proud

of the day and generation in which we live. And the next time that some pessimistic believer in the glories of the Past and shortcomings of the Present undertakes to point out to you the unmistakable evidences of modern decadence, quote to him these statistics, and add, provided you believe it, that well known sentiment from Byron:—"Better fifty years of Europe than a cycle of Cathay."

THE CONQUEST OF TUBERCULOSIS IN VERMONT.

By H. Edwin Lewis, M. D., Burlington, Vt.

Some one has aptly said that knowledge of any evil is the most potent means of overcoming it. In the conflict with tuberculosis it would seem that the need of the hour is not a greater volume of knowledge, but greater accuracy and definiteness of the mass of knowledge already possessed. It is true that the people at large know more to-day of diseases in general than ever before. But so much of this popular knowledge is superficial and distorted by misconception that it invariably falls far short of accomplishing the good it really should. Again, a large portion of the classes most afflicted with tuberculosis are the ones who read the least and have the fewest opportunities for acquiring popular knowledge of any character. Therefore, when human indifference is added to human misconception and human ignorance, the wonder is that so much has really been accomplished during the past decade in the warfare with tuberculosis.

Look at the question as we will, and no matter how enthusiastic we may feel in regard to the sanatorium as an important factor in fighting tuberculosis, the cold, indisputable fact remains that the great struggle must be fought in the homes, the schools and the shops. Under the most conservative estimates, for the next ten years at least, 92% of the country's consumptives have got to be treated in their homes and at their work! Sociologic and economic conditions leave no alternative. How important it is, then, that the greatest scourge of the day, tuberculosis, should be attacked primarily in its stronghold, the house—which includes, of course, the home, the school and the work shop.

How can the battle be won?

First of all by teaching the people through special literature, public lectures, the press and the pulpit, that tuberculosis is *curable if properly attended to in its first stages,* and that it is *the most easily prevented* of all communicable diseases. The people should be taught that neglected and protracted colds are always dangerous, that unaccountable loss of flesh is portentous, and progressive physical decline of any character is always serious, especially for those recognized as weak and below normal physical standards. The people should be taught that carelessness and neglect are the handmaids of consumption, and the surest protection against this disease is to *think,* THINK, THINK,—not of one's misery and suffering, but of one's habits, food, clothing, living and sleeping places and one's own physical condition.

Thoughtlessness is assuredly responsible for a considerable percentage of all cases of tuberculosis; first in the people not thinking of the conditions or habits that make so many liable to the disease; and second in not thinking enough of the early symptoms and signs that presage physical disaster, and always stand as danger signals of a terrible disease. It should be remembered that tuberculosis is not a disease that one contracts as one does the measles, small-pox or diphtheria. Its onset always covers a period of successive implantations of tubercle bacilli in some bodily tissue. The bodily soil may be fertile and require few implantations for the successful adaptation and growth of the bacilli, or it may be sterile and many

implantations never be able to adapt themselves to adverse conditions and gain a foothold. Call it susceptibility or immunity, it means but one thing, and that is that the factor of individual resistance is recognizable and important. Here, then, is the God-given opportunity of every person to build up their own defense against tuberculosis. Let them carefully study their own physique, their own physical tendencies, and strive to intelligently interpret deviations of physiologic processes in their own bodies.

Every one their own doctor?

No, in no sense of the word, but each and every person possessed of sufficient knowledge to recognize their own needs and their own tendencies. Then when these are recognized, sufficient appreciation of significant symptoms to lead to the proper steps necessary to correct bad conditions, and avert impending danger. If these steps include seeking the advise and counsel of competent medical men, the correction of personal habits, a change of climate or residence, a sojourn at a sanatorium, or anything else wise and sensible,—all well and good. It matters not what is done, as long as sensible action of some kind is prompted, and definite results are sought with intelligence and reason.

To recapitulate then, this is all we need to conduct a crusade against tuberculosis that will mean victory for humanity,—first and by all means the most important, the stimulation of intelligent thought along the lines of personal bodily health; and second the promulgation of definite rules of hygiene and sanitation that science and experience have proven efficient in controlling tuberculosis.

It will take a long time to accomplish the fullest returns for the energy that must be expended, but in the presence of the problem, public duty as well as self-interest requires each one of us to do our part. The school offers unusual opportunities for educative work on hygiene and physiology, and these important branches should be a part of every school curriculum from the grammar grade up. Every child, for obvious reasons, should be taught thoroughly in regard to the human body, the functions of different parts, the needs and dangers, and the fundamental principles of personal and domestic hygiene. Then as a special corollary of such teaching the character, dangers and the methods of preventing and avoiding tuberculosis should be carefully taught and retaught in every grade. Every child will thus be warned of the dangers and taught the importance of fateful signals in his own life. From such knowledge given to them in the period of greatest human receptiveness, only good can result. Furthermore, information obtained in the school often exerts a potent influence for good in the homes of the school children, and the immediate benefits of good teaching on a scholar's family may be little short of the marvellous. It is surprising how receptive are parents of little education to the missionary influence of their children, enjoying advantages which the parents themselves were denied.

"And a little child shall lead them," is prophetic of the possible role of school children in correcting evils of sanitation and hygiene which bear so important a relation to human tuberculosis.

It cannot be denied that a great deal of tuberculosis will be with us for a long time. Prevention under the most favorable conditions will only be partial in its effect for a decade yet, but no one should despair. Fortunately education will do as much for the actual consumptive as for the prospective one. Taught the right things and consumptives cannot only be cured in a fair proportion of all cases, but their days can always be prolonged, their suffering decreased and above all their dangerous influence can be entirely removed.

In concluding, let this thought be uppermost —the most potent weapon to-day for fighting tuberculosis is *education.* Through the school, the press, the pulpit, the sanatorium and the wide-awake, conscientious physician, the people can be reached. Turn on the light in the dark places. Let philanthropy and the State arise to the demands of the hour by establishing sanatoria, dispensaries and special commissioners, and we can banish this scourge from our midst. Millions of ignorant, indifferent or helpless people are listening for the message that will save them. For the love of our wives, our children, and our dear ones—for unborn generations—for God's sake—let no one place a single obstacle in the way of any project that offers the slightest hope in overcoming tuberculosis—the legitimate offspring of ignorance, indifference or helplessness.

RULES FOR PATIENTS WITH PULMONARY DISEASE.

1. Sleep with one or more windows wide open in your bedrooms, winter and summer. Have plenty of bed clothes and hot water bottles, but keep the windows open.
2. Have no fear of night air.
3. Dress warmly and sensibly. Keep feet dry, and if they do get wet, change shoes and stockings as soon as possible.
4. Get out of doors as much as possible, rain or shine.
5. Avoid damp rooms. Also crowded, overheated or dusty places.
6. Avoid unnecessary exercise or exertion. Be moderate in muscular effort of every character.
7. Avoid excitement or prolonged mental strain.
8. Avoid excesses of all kinds, especially those of alcohol and tobacco.
9. Bathe often. Take *warm* baths with alcohol rub at *bedtime,* and lukewarm or *cold* baths with coarse towel rub *in the morning.* Take all baths with sponge; never get into a tub.
10. Drink from three to six glasses of good water every day. Cultivate the water habit.
11. Eat good wholesome food. Avoid freak diets and eat meat once anyway and twice if possible daily. Have a system for taking food or nourishment like the following:

7 A. M. Take one or two eggs beaten up with two ounces of milk, two tablespoonfuls of sugar and one tablespoonful of sherry wine.

8.30 A. M. Take breakfast of fruit, cereal, steak, chop or eggs, baked potatoes, toast, coffee and a little malt extract.

10.30 A. M. Take two ounces of unfermented grape or orange juice, with wafers.

12.30 P. M. Take dinner of soup, fish, roast meat, vegetables, salads and dessert with cheese, nuts and some mild table wine like claret or port.

4.30 P. M. Take cup of hot clam bouillon, beef extract or malted milk.

6.30 P. M. Take supper of preserved fruits, toast or rolls, eggs or lamb chop, tea, chocolate or cocoa.

9.30 P. M. Take cup of hot milk with a teaspoonful of cocoa or chocolate; or an egg beaten up with tablespoonful of sherry wine, and to which a cup of hot milk is added, the whole suitably sweetened.

12. Keep bowels regular with mild physic or injections of warm water.
13. Sleep at least nine hours daily,—as many hours before midnight as possible.
14. Take utmost care of sputum. If you spit or expectorate use cloths that can be burned immediately before drying. A good plan is to purchase 50 yards of cheap cheesecloth, cut up into pieces four to the yard. Use these for spitting into

and burn as soon as dampened or soiled, or if not convenient place in small paper bags for keeping until such time as whole,—paper bag and all—can be burned.

15. Never swallow sputum.
16. Hold handkerchief or cloth before mouth when coughing, to save ejecting involuntarily small drops of sputum into the air.
17. Wash hands and face often.
18. Use some good antiseptic mouth wash from time to time and keep teeth scrupulously clean.
19. Take no drugs or medicines except those ordered by your physician.
20. Don't expect to get well in a few weeks. Time is an important factor in recovering from all chronic diseases, especially those of the lungs. Make a brave fight. Be cheerful and happy and look for favorable symptoms in the course of your disease. Strive to intelligently understand your condition and your personal needs.
21. Finally, remember that wishing never brings health, and your recovery depends not on what you want, *but on what you do.* Seek the right thing; do the right thing for yourself and those with whom you will be brought in contact, and success will crown your efforts. *Over half the battle is trying intelligently.*

NEWS, NOTES AND ANNOUNCEMENTS.

The Fight Against Tuberculosis.—The National Association for the Study and Prevention of Tuberculosis, which was organized in Atlantic City on June 6, has secured offices in the Associated Charities building on 22nd street in New York City. An executive secretary will be elected in September; in the meantime Miss Florence F. Colby has been made assistant secretary to start the work.

It is hoped that at least $50,000 can be raised yearly to carry on this crusade, which is to be mainly one of education. No sanatoria, hospitals, dispensaries or laboratories will be founded—at least, none are contemplated at this time.

It is planned to collect and disseminate information of every sort touching upon tuberculosis. Statistics will be collected and pressed on the attention of municipal bodies and institutions in order to get them to make scientific warfare against the spread of the infection. The association headquarters are to be made a clearing house for tuberculosis knowledge. Local associations and committees will also be encouraged and assisted in every conceivable way. It is probable that a special journal devoted to tuberculosis will be published; but this point is not quite decided.

A tuberculosis directory will be published. This will be done in co-operation with the Charity Organization Society, whose statistician, Miss Lillian Brandt, has already in hand a great deal of such information, including particulars of 125 tuberculosis hospitals and sanatoria in this country and Canada.

Thirteen States besides Vermont have special tuberculosis commissions for the purpose of investigating conditions and preaching the gospel of prevention and cure.

The American Public Health Association will hold its thirty-second annual meeting at Havana, Cuba, Monday, Tuesday, Wednesday, Thursday and Friday, January 9, 10, 11, 12 and 13, 1905, under the following administration: President, Carlos J. Finlay, Havana, Cuba; first vice-president, Jesus E. Monjaras,

Mexico; second vice-president, William C. Woodward, Washington, D. C.; secretary, Charles O. Probst, Columbus, Ohio; treasurer, Frank W. Wright, New Haven, Conn.

Transportation rates are not yet available, but the fare from New York and return will not exceed $70, and will probably be less. Full information in regard to transportation and hotel rates will be given at an early date.

THE EARLY SIGNS OF TUBERCULOSIS.—The significant symptoms of beginning tuberculosis are a rise of temperature some time during the twenty-four hours; an increased pulse rate; a progressive decrease in bodily weight; a slight cough in the morning and during the night; sweating at night or on the slightest exertion; fleeting pains in the chest; shortness of breath; frequent attacks of hoarseness or huskiness, and occasional flushing of one or both cheeks.

OBITUARY.—Dr. William Wotkyns Seymour, of Troy, N. Y., died suddenly at his home, October 18, 1904, aged 51 years. Dr. Seymour was a graduate of Harvard University and received further medical training in Europe, becoming one of the most prominent physicians in the eastern portion of the State. His father, Dr. William P. Seymour, was also a celebrated physician, and the son obtained early advantages through that fact.

Dr. William Wotkyns Seymour was afflicted with gallstone disease some years ago and crossed the ocean to be operated for that condition by Mr. Lawson Tait. He made a complete recovery and had, himself, operated for similar conditions upon many patients. He was surgeon to the Samaritan Hospital, Troy, and a fellow of the American Association of Obstetricians and Gynecologists.

For several years Dr. Seymour was professor of gynecology in the University of Vermont, Med. Dept.

TUBERCULOSIS QUESTIONS.—The *Revue Moderne de Med. et de Chir.* sent out blank circulars asking for the opinion of medical authorities in Europe in regard to the present status of the question of tuberculosis. The replies show the trend of thought to be rather against sanatoria. The results they have to show scarcely repay the expense. Special dispensaries for tuberculosis seem to be accomplishing as much as the sanatoria in the way of educating the public, while they frequently allow the detection of the disease in its incipient stages. The *Gaz. Med. Belge.,* commenting on the data obtained, urges that children should be taught in the primary grades the principles of the prophylaxis of tuberculosis. "What is the use of teaching them astronomy, botany, etc., when they are destined to die so soon of some tuberculous affection?" It also remarks: "Why should we wait until consumption is established before we learn to profit by fresh air and proper ventilation?"—*Jour. of the A. M. A.*

CREATES A TUBERCULOSIS COMMISSION.—Chapter 476 of the Laws of Maryland of 1904 provides for the appointment by the governor of five persons, three of whom shall be physicians, who shall constitute what is to be known as the Tuberculosis Commission, whose duty it shall be to investigate the prevalence, distribution and causes of human tuberculosis in Maryland, to determine its relation to the public health and welfare, and to devise means for restricting said disease, and to investigate and report on the proper construction, cost, equip-

ment, maintenance and location of a sanatorium for the treatment of tuberculosis. They shall report the results of their investigations not later than January, 1906. All hospitals, dispensaries and other institutions having medical officers and supported in whole or in part by public funds of the State, or of any city or county in the State, shall cause to be made on blanks furnished by the tuberculosis commission records of such facts as may be available for the purposes of the commission concerning every case of tuberculosis coming under the care of such institution.

Georgia is the latest State to have a live, enthusiastic tuberculosis commission.

Recent Deaths.—William L. Severance, M. D., University of Vermont, Burlington, 1884, died at his home in Greenfield, Mass., from tuberculosis, October 1, after an illness of two years, aged 46.

Clarendon L. Willey, M. D., University of Vermont, Burlington, 1903, formerly house physician of the Lynn Hospital, committed suicide October 12, by inhaling illuminating gas, while despondent from illness, aged 28.

Sir William Roberts on Digestion.—Sir William Roberts, of London, the great authority on digestion, says: "The digestive change undergone by fatty matter in the small intestines consists mainly in its reduction into a state of emulsion or division into infinitely minute particles. In addition to this purely physical change, a small portion undergoes a chemical change whereby the glycerine and fatty acids are disassociated. The main or principal change is undoubtedly an emulsifying process, and nearly all the fat taken up by the lacteals is simply in a state of emulsion."

This eminent authority is confirmed in the foregoing view by various experiments by which it has been ascertained that fat foods pass from the lacteals into the circulation by way of the thoracic duct in the form of emulsion.

Emulsified cod liver oil as contained in Scott's Emulsion appears in a form so closely resembling the product of natural digestion—as it occurs within the body—that it may well be administered as an artificially digested fat food of the very highest type. In combination with the other ingredients mentioned—glycerine being an emollient of inestimable value—Scott's Emulsion offers to the physician a valuable, exquisite and rare accession to his prescription list.

Reaping Ptomaines.—A great many people seem to think that it matters little what kind of material goes into the building of the human structure!

They feed on thorns and expect to pick roses!

Later, they find they have sown indigestion and are reaping ptomaines.

It's a wonderful laboratory, this human body. But it can't prevent the formation of deadly poisons within its very being.

Indeed, the alimentary tract may be regarded as one great laboratory for the manufacture of dangerous substances. "Biliousness" is a forcible illustration of the formation and absorption of poisons, due largely to an excessive proteid diet. The nervous symptoms of the dyspeptic are often but the physiological demonstrations of putrefactive alkaloids.

Appreciating the importance of the command, "Keep the Bowels Open," particularly in the colds, so easily taken at this time of the year, coryza, influenza and allied conditions, Dr. L. P. Hammond of Rome, Ga., recommends "Laxative Antikamnia and Quinine Tablets," the laxative dose of which is two tablets, every two or three hours, as indicated. When a cathartic is desired, administer the tablets as directed and follow with a saline draught the next morning, before breakfast. This will hasten peristaltic action and assist in removing, at once, the accumulated fecal matter.

The Vermont Medical Monthly.

A JOURNAL OF REVIEW, REFORM AND PROGRESS IN THE MEDICAL SCIENCES.

H. EDWIN LEWIS, M. D., *Editor.* FRANK C. LEWIS, M. D., *Business Manager.*

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Burlington, Vt., October 25, 1904.

EDITORIAL.

THE TUBERCULOSIS QUESTION IN VERMONT.

Now that the commission appointed by Governor McCullough two years ago to investigate the prevalence and extent of tuberculosis in Vermont has submitted its report, it remains to be seen what steps the Legislature will take toward continuing the struggle against the disease in our State. The report leaves no question but what the local problem is an important one to our people and the interests of all would seem to justify active measures along definite lines. A careful canvass of the whole situation would seem to indicate that perhaps the time and conditions are not entirely favorable for the establishment of a State sanatorium. So far as can be learned no one denies the great value of a sanatorium in assisting to solve the tuberculosis problem. The present question is entirely one of immediate policy and utility. Realizing that a sanatorium to be effective must be resorted to early, are our people sufficiently awake to the absolute necessity of early treatment to promise that a sanatorium would accomplish the greatest immediate good in our State? Would a sanatorium at the present time be able to overcome the present tendency of most people to temporize with nostrums, patent medicines and fake cures until the disease is considerably advanced? Probably not, and for a time at least a sanatorium would have to blaze its own way and define its own scope and limitation. Therefore, will it not be economically wiser to conduct a campaign of education among our people, in the words of the Tuberculosis Report, "spreading the truth in regard to tuberculosis, teaching the well how to avoid it, the afflicted how to recognize it early enough to get rid of it and how its communication to others can be avoided. Such a campaign would embrace the dissemination of appropriate literature, the holding of public meetings in the different towns and rural communities, the further investigation of conditions in Vermont, and above all the development of an interest that would ensure the early recognition of the disease and establish the absolute importance of beginning treatment *"at the right time, in the right way and at the right place."*

Thus our people would not only receive great immediate benefits from such a campaign, but the utility and true place of the sanatorium in the conflict with tuberculosis would be impressed upon them, and when its benefits are finally opened to them they will be quick to grasp them.

Therefore, policy and economy would seem to justify the bill which has been introduced creating a commission of three physicians and two laymen to conduct a campaign of education throughout Vermont. Popular lectures will be given in every county, schools will be reached through the school teachers whose aid will be invoked, the press will be utilized, and appropriate literature will be distributed. Nothing will be neglected that will give publicity to the important facts about tuberculosis which will enable our people to overcome it and avoid contracting it or giving it to others.

The expense of such a commission will be small, but the results cannot fail to be prompt and permanent. We believe that our legislators will meet the situation with wisdom and a due appreciation of the needs of the State.

EDITORIAL NOTES AND CLIPPINGS.

WHERE LIFE IS PROLONGED.

GRAND ISLE COUNTY CHAMPION DISTRICT FOR IMMUNITY FROM TUBERCULOSIS.

The following editorial appeared in a recent number of *American Medicine:* "In Grand Isle County, Vermont, there was in 1901 a population of 4,462, and the deaths from tuberculosis numbered three. In 1902 the deaths from this cause were six, and in 1903 only two. We wonder if there is so low a death rate from tuberculosis anywhere else in the civilized world, and under anything like similar conditions. In this county there are no villages except small ones, and not over 100 people in any village. The houses are all several rods from each other. The population is almost entirely farmers and fruit growers. The county is literally an island, and strong winds continually blow over the water surrounding it. That such exceptional conditions have an influence upon the mortality is plain from that of Franklin county, lying next to Grand Isle, and not so sparsely settled, but otherwise similarly circumstanced, in which the death rate from tuberculosis was in 1901 0.179, as against 0.067 in Grand Isle. It might be a pity to raise the death rate of the citizens, but what a place for a tuberculosis sanitarium!

Perhaps the whole State of Vermont would get the prize in a State contest for a health prize. There has been a steady decrease in the deaths from tuberculosis from 1886, when they numbered over 700, to 1903, when they were only 439. In 1901 there were 415 dying of senile debility or general decay and 145 of these were over ninety years of age and nine were over 100 years old."

The Champlain Open-Air Sanitarium was established in 1903 with a due knowledge of the above facts and conditions. The results that have been obtained during the past two years have been little short of marvellous, and they justify all the claims that have been made for the location. The important fact being demonstrated is that altitude is not a factor in the cure of incipient tuberculosis. Pure air is the great requisite and if there is a place on God's good earth where the air is purer than on Grand Isle, Lake Champlain, especially the west shore, we would like to see it. *There is no dust—this is the secret!*

Incidentally it may be stated that the Champlain Open-Air Sanitarium is a private, summer institution. It is not conducted for revenue only, but is designed for patients of moderate means who are able and willing to pay a moderate price. It aims to meet a legitimate demand in Vermont for a place where patients afflicted with early tuberculosis can obtain proper open-air treatment in their home climate during the summer months.

It was never established with the object of ever becoming State property; it in no wise is adapted to the needs of the State; its location precludes any such possibility; and any statement to the contrary from any source is the result of malicious falsehood, or pitiful ignorance. In every sense of the word it is a private enterprise, for honest private purposes, and the splendid work it has done should not only command respect, but immunity from attack.

THE CURABILITY OF PULMONARY TUBERCULOSIS UNDER SANITARIUM TREATMENT.—Within the last few years numerous reliable statistics have been published bearing on the curability of pulmonary tuberculosis. In the majority of these it is to be noted that although the patients were traced, the ultimate condition of their lungs was not reported on by a physician, and, further, that the term "well" or

"recovered" used in connection with such patients does not usually denote whether the patient is well enough to work at his ordinary vocation, or whether he is merely free from symptoms of the disease. In his recent report of the last three years' work of the Friedrichsheim Sanitarium, Rumpf was able to follow nearly all his patients (over 97 per cent.) for from three to four years after their discharge, and was able to have the report of a physician as to their pulmonary condition. The real criterion of cure Rumpf considers to be the ability to perform daily work. Of the patients who entered the sanitarium in the first stage of the disease, it was found that 70 per cent. were able to work three to four years after discharge, while of those who entered in the third stage the percentage of deaths increased each year after discharge. The patients who commenced treatment in the second stage of the disease held a middle place, a fair number recovered, but not a few died. Summing up the results, Rumpf states that of those entering in the first stage, 70 per cent. are able to work at the end of three or four years; of those entering in the second stage, 55 per cent.; of those entering in the third stage, 23 per cent. Such results place the prognosis of pulmonary tuberculosis in a rather more favorable light than many of the recent statistics would lead us to expect; they serve to emphasize the fact, which can not be too often stated, that the percentage of cures is in direct ratio to the number of early diagnoses.—*Jour. A. M. A.*

MEDICAL ABSTRACTS.

Kumyss Treatment in Tuberculosis.—In Russia the kumyss, made from mare's milk, has long been very extensively used as a remedy in consumption. Levashoff points out that the Russian people early recognized the fact that the rational treatment of tuberculosis did not consist in specific medication, but in the improvement of the powers of resistance of the body. This is the object of kumyss feeding, and Levashoff places this therapeutic method at the htad of all the public measures which should be adopted in the struggle against the disease in Russia. In the spring and early summer there is a great annual pilgrimage of consumptives eastward and southward by railroad and down the Volga on steamers. These patients come to drink kumyss in one of the provinces of Ufa, Samara, Saratoff, Orenburg, etc., and the great majority of the patients belong to the less well situated classes. Levashoff gives statistics showing that over thirty per cent. of consumptives in the first and second stages recover completely on simple kumyss treatment, and that over thirty-seven per cent. are considerably improved. He enters a strong plea for a better organization of kumyss treatment, for provision for medical attendance upon poor consumptives who take this "cure" now entirely without medical aid, and for a systematic study of the kumyss treatment.—*Med. Times.*

Tuberculosis and Child Nursing.—A weak and consumptive mother should not nurse her infant. Although there is little likelihood of her milk itself being infected, it is generally not sufficiently nutritious. Lactation is a great drain upon the mother's strength and may precipitate fatal termination to her disease. Besides the infant may contract inhalation tuberculosis while taking the breast. Either a wet nurse should be found, or the infant should be bottle-fed. The latter is the better way, in view of the well-nigh perfect system of infant feeding which physicians have now evolved. In large cities, both public and private charities have become so active in this regard that the poorest people may have excellent milk prop-

erly modified at little, or no cost at all, if need be.—*Huber in Med. Times.*

Human and Bovine Tuberculosis.—Raw (*British Med. Journal*) has had under observation during the last few years over 3,000 cases of phthisis pulmonalis. He has been impressed with the fact that the tuberculous process is nearly always confined strictly to the lungs. Out of these cases he has seen the glands and joints affected in only 14 instances, and in the late stages, he says, the intestine and peritoneum may be involved. It is rare to see phthisis pulmonalis as a primary affection under the age of 12. On the other hand, strumous or tuberculous joints, enlarged glands, spinal disease and abdominal tuberculosis, with tabes mesenterica, are essentially diseases of infancy and childhood, and are only rarely seen in adult life. Furthermore, it is rare to see these young patients develop true phthisis pulmonalis. In fact, clinically they appear to be antagonistic to each other, attacking the body at quite different periods of life and exhibiting generally opposite symptoms. If one compares the appearances seen in cattle dying with tuberculosis with those of children dying of tabes mesenterica and abdominal tubercle, the almost exact counterpart is seen. Raw inclines to the belief that primary intestinal tuberculosis, tabes mesenterica and other tuberculous affections of the serous membranes in children are probably bovine tuberculosis conveyed by milk, and are not true human tuberculosis, although the bacillus of Koch is found in them all. Of nearly 300 cases of tabes mesenterica observed by him during the last twelve years not one has occurred in a child which has been fed strictly on the breast, the whole of them, without exception, having been reared on cow's milk for some considerable period. He concludes further that scrofulous glands in the neck are produced by the absorption of tubercle bacilli in the milk through the tonsils and pharynx, and, as a rule, the affection is a purely local one. This view is supported by feeding experiments on animals. Tuberculous meningitis in children, Raw also considers as a bovine tuberculosis. He believes that when tuberculosis is stamped out from cattle surgical tuberculosis in children will to a great extent disappear with it. Further, that the human body is affected by two varieties of tubercle, one producing phthisis pulmonalis and generally attacking adults, the other bovine tuberculosis attacking children during the milk-drinking period, and producing bovine tuberculosis in children. Human and bovine tuberculosis are separate and distinct varieties of disease, but the human body is susceptible to both, and especially to bovine tuberculosis in the early periods of life. The two diseases are rarely seen together in the human organism. Raw is engaged at present in collecting the blood of animals killed for tuberculosis and securing the serum, which, after careful preparation, he proposes to use in the treatment of phthisis. —*Jour. of the A. M. A.*

The Public School and Tuberculosis. —In discussing the subject of how may the public school be helpful in the prevention of tuberculosis, in *N. Y. Med. Journal,* Knopf takes up the duties of the school board with reference to choosing a site for a school and the construction of the school; the duties of the superintendent of a public school in arranging the curriculum so as not to overtax the brain and nervous system of the children; the duties of the school teacher in carrying out the ideas of the superintendent, and those of the school physician in relation to the prevention of tuberculosis. He has compiled a set

of rules, a copy of which is given to every child, who is urged to read them, to take them home, and to show them to their parents:

Do not spit, except in a spittoon or a piece of cloth or a handkerchief used for that purpose alone. On your return home have the cloth burned by your mother, or the handkerchief put in water until ready for the wash.

Never spit on a slate, floor, sidewalk, or playground.

Do not put pins in your mouth.

Do not put your fingers into your mouth.

Do not pick your nose or wipe it on your hand or sleeve.

Do not put your fingers in your mouth when turning the leaves of books.

Do not put pencils into your mouth or wet them with your lips.

Do not hold money in your mouth.

Do not put anything into your mouth, except food and drink.

Do not swap apple cores, candy, chewing-gum, half-eaten food, whistles, bean blowers, or anything that is put in the mouth.

Peel or wash your fruit before eating it.

Never cough or sneeze in a person's face. Turn your face to one side, and hold your hand or handkerchief before your mouth.

Keep your face and hands and finger nails clean; wash your hands with soap and water before each meal.

When you don't feel well, have cut yourself, or have been hurt by others, do not be afraid to report to the teacher.

A systematic examination of school children, and the supervision of the sanitary condition of the school buildings, are two things that should receive the most careful attention from the school physician. Public school sanatoria for the treatment of tuberculous and scrofulous children are an urgent necessity. They will serve as places for the cure of tuberculous children, many of whom, without this, will ultimately develop the more severe type of the disease, and will become burdens either to their parents or to the community at large. —*Jour. of the A. M. A.*

Early Signs of Tuberculosis.—Brown emphasizes the fact that absence of physical signs in the chest is no better proof that a patient has not pulmonary tuberculosis than absence of tubercle bacilli in the sputum. Auscultation is by far the most important method of physical exploration in incipient pulmonary tuberculosis. Inspection, including mensuration, and percussion, are of nearly equal importance. Palpation is of less value. Auscultation should be practiced, however, before the patient is made to breathe deeply, as otherwise fine crepitation may be overlooked. In many incipient cases little or no deformity of the chest exists. In most of these the chest is well developed, though possibly a trifle long, with a slight prominence of the clavicle on the affected side. Careful inspection showed a restriction of movement in 10 out of 18 cases; percussion of the bases revealed it in 13; radioscopy in 13. The vocal fremitus was normal in two-thirds of the cases examined (201), and was three times more apt to be increased on the affected than on the unaffected side. Some degree of dullness may occur without change in the auscultatory signs. Kroenig's method of percussion is of value in the examination of incipient cases. Radioscopy has a distinct advantage in determining the movement of the base of the lung in deep-seated lesions; percussion, possibly, in "pleuritic" cases. In 28 of the 201 cases percussion was negative, while auscultation revealed some pathologic sign. Prolonged expiration was present in 32 per cent.; wavy breathing at the site of the lesion in 11 per cent.; weakened breathing in 10 per cent.; puerile breathing in 12 per cent.; harsh breathing, with loss of vesicular murmur, in 8 per cent. Some deficiency in the vesicular murmur was present in 41 per cent. The vocal resonance was normal

in 62 per cent; increased at the site of the lesion in 38 per cent. Rales occurred in 70 per cent. in the following order of frequency: Fine, medium moist, rhonchi, mixed. Pleuritic friction occurred in 1 per cent. Tubercle bacilli were found in the sputum in 35 per cent. Fifty-eight per cent. of the cases did not apply for admission into the sanitarium within the first six months of illness. In the 201 cases the site of the primary lesion was most frequently above the clavicle, then in the suprascapular area and subclavicular fossa. Sixty-one per cent. occurred on the right side.—*Jour of the A. M. A.*

STRAY THOUGHTS.

Cheerfulness.—A sunny man attracts business success: everybody likes to deal with agreeable, cheerful people. We instinctively shrink from a crabbed, cross, contemptible character, no matter how able he may be. We would rather do a little less business or pay a little more for our goods, and deal with an optimist.

The great business world of to-day is too serious—too dead-in-earnest. Life in America is the most strenuous ever experienced in the history of the world. There is a perpetual need of relief from this great tension, and a sunny, cheerful, gracious soul is like an ocean breeze in sultry August, or the coming of a vacation. We welcome it because it gives us at least temporary relief from the strenuous strain. Country storekeepers look forward for months to the visits of jolly, breezy traveling men, and their wholesale houses profit by their good nature. Cheerful-faced and pleasant-voiced clerks can sell more goods and attract more customers than saucy, snappy disagreeable ones. Promoters, or organizers of great enterprises, must make a business of being agreeable, or harmonizing hostile interests, and of winning men's good opinions. Newspaper men, likewise, depend on making friends to gain entrance, to get interviews, to discover facts, and to find news. All doors fly open to a sunny man, and he is invited to enter when a disagreeable, sarcastic, gloomy man has to break open the door to force his way in. Many a business is founded on courtesy, cheerfulness, and good humor.

The world is too full of sadness and sorrow, misery and sickness; it needs more sunshine; it needs cheerful lives which radiate gladness; it needs encouragers who will lift and not bear down, who will encourage, not discourage.

Who can estimate the value of a sunny soul who scatters gladness and good cheer wherever he goes, instead of gloom and sadness? Everybody is attracted to these cheerful faces and sunny lives, and repelled by the gloomy, the morose, and the sad. We envy people who radiate cheer wherever they go and fling out gladness from every pore. Money, houses and lands look contemptible beside such a disposition. The ability to radiate sunshine is a greater power than beauty, or than mere mental accomplishments.—*Success.*

In London, a few years ago, a prize was offered for the best definition of a gentleman, and the one for which the prize was awarded is this: "A gentleman is a knight whose armor is honor and whose lance is courtesy."

Cheerful temper, joined with innocence, will make beauty attractive, knowledge delightful, and wit good-natured. It will lighten sickness, poverty and affliction, convert ig-

norance into an amiable simplicity, and render deformity itself agreeable.—Addison.

Don't object that your duties are so insignificant; they are to be reckoned of infinite significance, and alone important to you. Were it but the perfect regulation of your apartment, the sorting away of your clothes and trinkets, the arranging of your papers, "Whatever thy hand findeth to do, do with all thy might, and all thy worth and constancy."—Carlyle.

NEWER REMEDIES.

The Ideal Tonic for Consumptives.—No remedy known to the medical profession has a greater range of usefulness in the successful treatment of pulmonary diseases than Fellows' Comp. Syrup of Hypophosphites. In tuberculous conditions it is remarkably efficacious and many a patient can date their recovery from the day they took the first dose. Certainly there are few remedies enjoying the same degree of confidence from the medical profession, and Mr. FeFllows should be proud of the place his preparation fills in the armamentarium of countless English-speaking physicians. The more it is used the more it grows in popularity, for it is one of the few tonics that never disappoints.

Doctor, do you know that the most reliable remedy to-day for the treatment of troublesome cough is Glyco-Heroin (Smith)? The wonderful influence of this elegant preparation is little short of marvellous when everything else has failed. It is palatable, free from disagreeable effects, and always "does the work." If you have not used it, by all means do so and learn of its worth.

Chronic Otorrhoea and Ulcers of the Auditory Meatus.—Dr. G. Frank Prevost, of Montreal, Can., reports as follows: "I have obtained complete and permanent cures in many cases of catarrhal affectionc of the ear in young children, and below give the history of a case of chronic otorrhœa:—

"Girl; name, Irene Audette, age 6. She began to have running from the ear at the age of 9 or 10 months, which had continued until she came under my care. Ordered an injection of Glyco-thymoline, one-half ounce, to hot water, 12 ounces, sufficient being used perfectly to cleanse the ear. I then ordered Glyco-thymoline, 1 ounce, to water, 7 ounces, to be applied hot by means of a tampon of absorbent cotton three or four times daily. A few weeks of this treatment sufficed to produce a complete cure. A year has now elapsed without any recurrence of the symptoms and the child has improved in health.

"I can heartily recommend this treatment to my *confreres.*"

Visiting and Pocket Reference Book for 1905.—The following is a comprehensive contents: Table of signs and how to keep visiting accounts, obstetrical memoranda, clinical emergencies, poisons and antidotes, dose table, blank leaves for weekly visiting list, memorandum, nurses' addresses, clinical, obstetrical, birth, death and vaccination records, bills rendered, cash received, articles loaned, money loaned, miscellaneous, calendar 1905. 126 pages, lapel binding, red edges. This very complete call book will be furnished by the Dios Chemical Co. of St. Louis, Mo., on receipt of ten cents for postage.

New York and New England Association of Railway Surgeons.—The fourteenth annual meeting of the New York and

New England Association of Railway Surgeons will be held at the Academy of Medicine, New York City, November 17-18, 1904, under the presidency of Dr. C. G. J. Finn, of Hempstead, Long Island. Railway officials and all surgeons interested in this work are cordially invited to attend.

REMARKS ON GLYCO-THYMOLINE.

By W. R. D. Blackwood, M. D., Philadelphia.

For many years past this preparation has been one of my mainstays in diseases of the mucous membranes, and it has held its place despite the trials of many other agents warranted to supplant it by the advocates who decried Glyco-Thymoline when I spoke of its virtues. Space is now getting too valuable to waste with long detailed descriptions of separate cases, and anyhow I never did write in that manner—I think general remarks about agents is the better way, and we need this more than stories of symptoms and temperatures, with daily alterations. No class of maladies is more troublesome than disorders of the mucous membranes, and none more difficult to eradicate thoroughly, and we have been put to our wit's end many times for remedial agents in such cases. The local treatment for catarrhs is frequently disappointing, and none more so than the prevalent one—post-nasal catarrh. Unless we can get an alterative condition established little good is done, and nothing has been of greater service to me than Glyco-Thymoline, locally and internally, in several hundreds of long-standing and severe cases of this intractable and common affliction. I have come to regard this preparation as a standard and almost routine remedy; I seldom care for a post-nasal trouble without prescribing it at the onset, and if I don't it is not long before it comes into use. It is just alkaline enough, just so as to the dialysis—(the action locally with exactly the right amount of fluid excretion through the diseased membrane), just enough astringent without drying the parts, and just the right thing in the direct line of reparative work; it sets up tissue building soon after the membrane gets somewhere near its right shape. Many things are employed in catarrh, but I firmly believe that if I was confined to one agent only, that would be Glyco-Thymoline. For years I used the so-called antiseptic tablets of boric acid and glycerin, etc., and with good results, but for a long time past this is thrown aside and the Glyco-Thymoline takes its place. I use it in about half strength with a Bermingham douche and from twice to four times daily. With this, in bad cases, I give it internally, adding to it, or giving separately, mercuric bichloride, and if done separately the menstrum is compound syrup of stillingia. In presumed syphilitic persons I always do this.

In gastritis, chronic enteritis, vaginitis, gonorrhoea, and in recurring attacks of what too many physicians deem appendicitis, I use this agent freely, and always with good results. As a local application to foul ulcers and especially to hemorrhoids, I think this preparation is very good. In the nasty leg ulcers which now and then defy all remedies, Glyco-Thymoline does wonders—it can't do harm any time, and I am almost persuaded to give it in all instances. In bronchitis and asthma it is fine; in spasmodic croup it fills the bill nicely; it does well in venereal disorders locally, and in balanitis it stops the trouble at once.

—*Medical Summary,* December, 1903.

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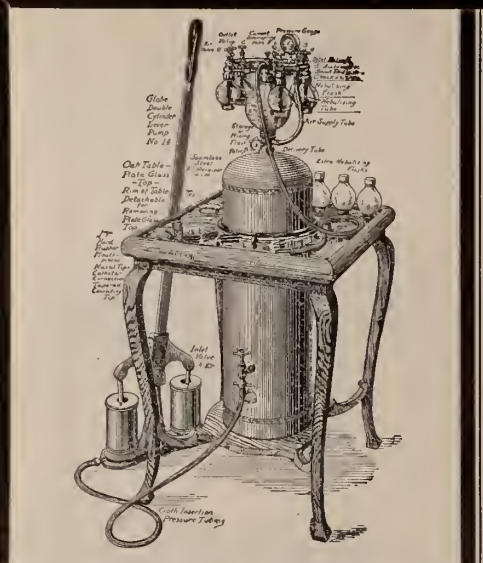

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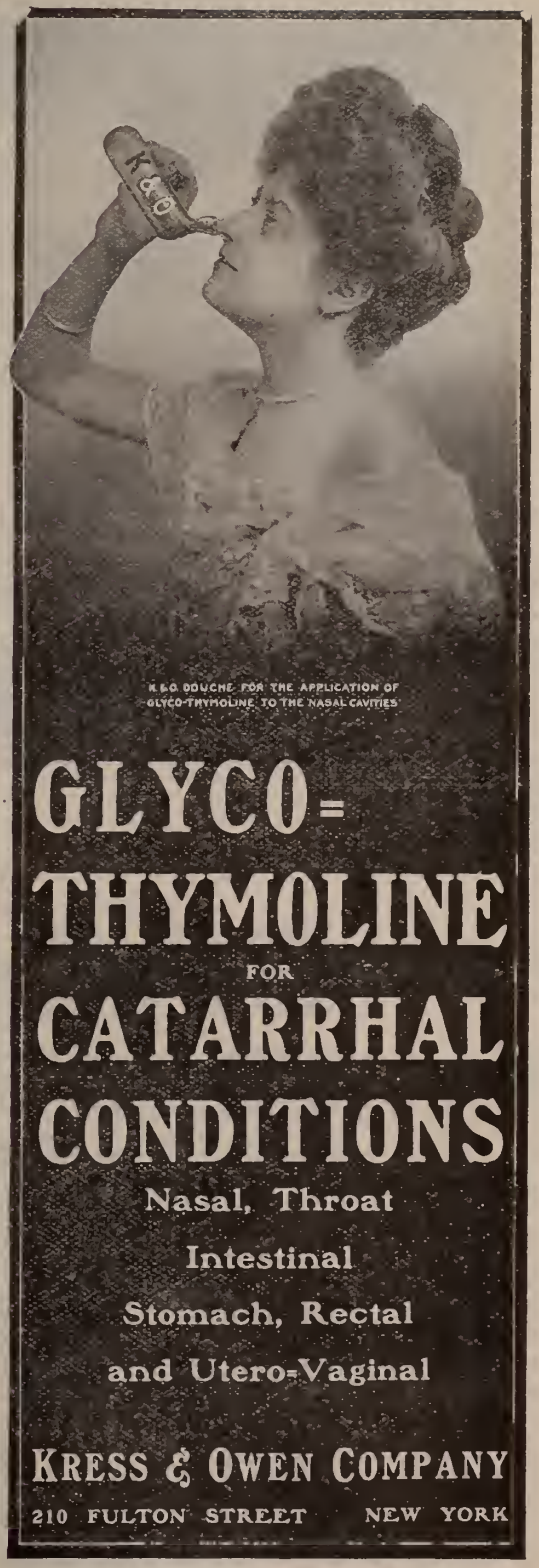

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The Vermont Medical Monthly

Vol. X. November 25, 1904. No. 11.

ORIGINAL ARTICLES.

EMPYEMA.*

By M. L. Chandler, M. D., Barre, Vt.

Among the operations of surgery which have been consigned by the surgeon to the physician, are paracentesis of the abdominal and thoracic cavities, as well as vaccination and the tapping of hydrocele. The drainage of the pleural cavity also seems to have followed the operation of tapping. It seems to be very much more interesting to the physician and general practitioner than to the surgical specialist. This is due to the way these troubles originate.

Empyema, or more strictly speaking, pulmonary empyema, is to be expected after a certain per cent. of acute pleurisies and pneumonias. It is in fact a purulent pleurisy. It also occurs in many cases of pulmonary tuberculosis.

There seems to have been more cases of empyema following the pleurisies and pneumonias in epidemics of the grippe than ever occurred before. It is also more common after the pneumonias and pleurisies secondary to the infectious diseases, than after the simple or primary cases. This may be due in the one case to the virulence of the influenza bacillus and a tendency to pus formation; and in the other to a lowered state of the vital forces. Empyema occurs most frequently in young adults and children, except when it accompanies pulmonary tuberculosis.

*Read at a meeting of the Washington County Medical Society.

Like the pleurisy which it follows, it may be general, or circumscribed. The circumscribed empyema is found most with tubercular disease, or it may occur after extensive adhesions have been formed by previous inflammations. Of course we may get an empyema from trauma, and too we may get it from malignant disease and caries of the ribs or spine.

The symptoms in an ordinary case are those of pleurisy with effusion with the element of time added; for seldom do we have a case where the pus is not preceded by a serous effusion. In addition to the time element we have an appearance of sepsis, especially noticeable on the temperature chart, which does not belong to the serous stage.

The pus tends to seek an outlet and may burrow in almost any direction, though I believe it is more likely to find an outlet by the bronchial tubes than any other way. This should never be allowed. The prognosis depends much upon the origin of the trouble. It is a serious condition in any event. Some children in whom it has followed a simple pleurisy may recover spontaneously, but it does not often happen. Some of the same class of cases may recover after the pus has been aspirated one or more times. This is unusual, too. The law holds in any case "where there is pus, cut."

Except where the patient's condition is too precarious, thorough drainage is the safest course. Even in the most desperate cases where the empyema is not secondary to a rapidly fatal primary cause, as malignant disease, or extensive tuberculosis, many patients may be brought back from the very jaws of death.

So it is well to consider very carefully every step in the treatment.

To begin with, most cases are kept much longer waiting for treatment than is good for them. Parents are reluctant to permit of operation until it is evident to them the child can not recover. All too often the physician awakens to the knowledge of the changed condition so late as to make him ashamed of himself. In children, if small and thin, the bulging of the intercostal spaces, the absence of respiratory movement, the flatness of the percussion note, together with the sensation of extra weight on the affected side, are signs not to be overlooked. Nor should we fail to observe the significance of the septic condition. In the adult the signs are not so obvious, but there is no danger in aspirating under aseptic conditions. The operation and subsequent care depend much upon the cause.

Bacteriological examination of the aspirated pus may show the kind of infection we have to deal with. We may have sterile pus that is sometimes spoken of, but the chances are much against it, and the probability of its remaining sterile for any length of time so small that it may be disregarded. If there is tubercular infection or if streptococci and staphylococci are present, then there is nothing to do but drain freely.

It is said that these cases did very badly before the days of antiseptics. The mortality was very high. The operation is one of the oldest known to surgery. The general principle to drain from the most dependent portion of the cavity holds here. But we must consider what position the patient will assume, and may also have regard to the thickness of the chest walls and the room in the intercostal spaces for drainage tubes. And still further we must note where the lung is last to reach when it expands. This is about the fifth intercostal space in the anterior axillary line.

So in a case following an acute infection, where the patient may be left in bed to recover, that is the best place for the incision. But if the case is old or tubercular, and needs to get up for fresh air and sunshine at the earliest time possible, and the drainage seems likely to be required for a long time, then it is probably best made in the midaxillary line in the seventh intercostal space, or perhaps a little in front of this line.

In adults it may be impossible to keep a tube open on account of the narrowness of the intercostal space, and if so a resection of the rib may be necessary.

The use of a general anaesthetic is not at all times safe in these cases, especially if the chest is very full. They take ether very badly. This operation may be done with cocaine or ethyl chloride locally. Sometimes the patient's strength may be increased by aspirating once or twice at intervals of a few hours, previous to the operation. If resection is to be done this is often the best proceeding. So it is if the chest is very full and the pulse bad, for the sudden expansion of the lung might bring on collapse.

The position of these patients at operation is of importance, especially if an anaesthetic is given. The patient ought to be kept while anaesthetized in the position he assumes naturally if possible. The lung should be made to expand only very slowly, so one ought to be able to control the flow of pus or check it altogether for a time, if much pain or cough or syncope occurs.

So for the operation; when all aseptic precautions have been taken, all we require is a knife and handful of aseptic moist gauze, a pair of artery forceps and a drainage tube with shield. We can do the operation more safely and rapidly with a sharp pointed steel director, which is an exploring needle at the same time. With the director inserted like an exploring needle until the pus flows, a blunt or probe pointed bistoury is passed down

to the point of the director and the incision extended as far as desired. Keep away from the intercostal artery by cutting near the upper border of the rib. There should be no extensive hemorrhage.

This method is to be preferred when you cannot fully anaesthetize. Restrain the flow of pus if there is much tendency to cough or severe pain or faintness. The incision needs to be two and one-half to three inches long. Drainage is provided best by rubber tubes, although some use gauze. The tube should be at least three-eighths of an inch in diameter, doubled and fenestrated, one opening at the bend being an inch long and removing about half of the circumference of the tube. It should be long enough to turn downward and make the least possible pressure on the opposing surface of the lung. When passed through the incision nothing is better than a pair of artery forceps, which may be used also as dilators. If the patient is anaesthetized the tube may be secured by a suture or two. If not, a shield of rubber dam, or better thicker rubber, two or three inches square is fitted about the tubes and the tubes held in place with a safety pin. Adhesive strips across the pins and rubber will keep the tubes in place in children who otherwise are sure to lose them out the first night. The reinsertion of the tubes is more painful than the original operation. These tubes should be cut off within a half inch of the body and a doughnut-shaped roll of gauze placed around them and more gauze over all. This dressing, held in place by a bandage or swathe, is just as efficient as any complicated valvular drainage. A very large dressing is required for the first two or three days. The pleural cavity is not to be irrigated the first day as a rule. Dressings must be changed at least once a day and after the first day I believe in washing out the cavity. Sterile normal salt solution at a temperature of 105° or 110° F. is better than anything else. Boric acid solutions were popular at one time, but are out of fashion. Many claim there is no need for irrigating if the drainage is free enough, but it seems to me that many times shreds and clots are brought away when otherwise they would be left to disorganize.

It gives the patient a chance to expand the lung more freely if the tubes are removed, and they should be taken out every day after the first and washed and boiled. Then by irrigating you can form a better opinion of the nature of the discharge and can know how large the cavity is each day. It is not safe practice to fill the cavity full for a few days after operation, nor indeed is it advisable to inject more than six or eight ounces at most.

These cases may recover in three weeks or may go three months. There is no question but that it is better in tubercular cases where the general condition does not promise a healthy reaction to resect a rib. This savors more of surgery, yet it is not a difficult operation if the anaesthetic is well borne. The incision can be made lower down and further back in these cases. The seventh rib in the posterior axillary line or middle line is low enough. The incision is made two and a half or three inches long, down to the rib, and the periosteum raised all the way around the rib. Turn the intercostal artery out of its groove, cut the rib with special forceps with one sickle-shaped jaw, or even straight or angular bone forceps will do. It is said that a wire saw is better than anything else, as it does not twist the ribs and leaves smooth ends. Whatever you use, protect the pleura from injury. A little more than one inch of the bone should be removed. Some advise resection of two ribs, but that can seldom be necessary. When the rib has been removed make a small incision at first through the pleura, so as to drain slowly.

Following resection the more radical measure of swabbing out the cavity is in order.

Gauze drainage will do in these cases. Some will not heal when drained by simple incision, but after resection of a rib and swabbing out the cavity with due care, the secretion of pus will cease. The expansion of the lung is rapid if the operation has not been too long delayed. If expansion seems too slow it may be hastened by properly regulated exercise, such as blowing up rubber bags or forcing water from one bottle to another through tubes. Children may blow soap bubbles and get some amusement from their treatment.

In a large per cent. of cases there will be some deformity. The lung must accommodate itself to the chest cavity, or the chest wall will fail to fit the lung. This is sometimes accomplished by resection of a large part of several ribs, and is surely a surgical procedure. Such cases ought never occur. They are a reproach to the profession.

To conclude, I wish to say once more that a diagnosis can be made easily, safely and positively with an aspirating needle. That after the diagnosis has been made certain, there are almost no conditions which should induce you to delay operation; every day the pyogenic membrane grows thicker and the lung becomes more compressed and bound down. That even though the patient does not die by reason of delay, the deformity becomes greater and the operation more dangerous. That the less complicated apparatus for drainage is just as efficient as any that has been made. That the mortality from the operation is almost nothing.

TYPHOID FEVER.

Its Etiology, Modes of Dissemination and Treatment.

By E. H. Ross, M. D., St. Johnsbury, Vt.

Typhoid fever, as defined by Osler, is "a general infection caused by the bacillus typhosus, characterized anatomically by hyperplasia and ulceration of the lymph-follicles of the intestines, swelling of the mesenteric glands and spleen, and parenchymatous changes in other organs."

It is safe to say that the medical profession to-day is agreed in recognizing the bacillus typhosus as the direct cause of typhoid. Briefly the bacillus may be described as a rather short, thick, flagellated, motile bacillus, with rounded ends.

VITALITY OF BACILLI TYPHOSI—INFLUENCE OF TEMPERATURE.

The bacilli are killed when exposed to temperatures of 108° F. for twenty minutes. Repeated freezings do not destroy their vitality. In sterilized stools and in stools that have stood for some time the bacilli may remain alive for months. In fresh typhoid stools and in normal stools they die much sooner. In sterilized garden soil they remain alive twenty-one days; on sterilized linen, sixty to seventy days; in street sweepings, thirty days. When dried in various ways their duration of life was from one to sixty-four days; free access of air shortens the duration. Hydrochloric acid of the strength found in the normal gastric juice does not destroy their vitality for several hours.

Cultures in a dish exposed to sunlight were killed in one to seven days; in sterilized water exposed to sunlight they were killed in an hour. In sterilized river water they disappear in forty-three to eighty-one days. In ordinary well water or river water they rapidly diminish in numbers and disappear in fourteen to thirty days as a rule, though they have been found alive after 196 days. They can also grow in milk and live on various food stuffs, as in butter. Their presence in oysters has been repeatedly demonstrated. As predisposing causes we must consider poor drainage, filth, over-crowding of tenements, improper

and insufficient food and any condition tending to lower the vitality of the individual.

Modes of Dissemination—The bacilli are excreted from the body of the patient suffering from the disease not alone in the stools, but also in the urine, sweat, sputum. For this reason everything that comes in contact with the patient or any of his excretions is liable to infection.

Contagion.—The possibility of contracting the disease by the direct transmission of the bacilli, through the air, from one person to another, cannot be denied. Though, as has been mentioned, when thoroughly dried they quickly lose their vitality. The probability of anyone's contracting the disease from simply entering the room of a typhoid patient is very remote. Nurses and those who come into direct contact with the stools and clothing and bedding of the patient are practically the only ones in danger of direct infection.

(2) *Infection of water* is beyond dispute the most common mode of conveyance. Epidemic after epidemic has been traced to a contaminated water supply. In St. Johnsbury we have had at different times several epidemics which could be traced directly to pollution of the river water system. One in particular which occurred in 1896 and 1897 was traced to a case of typhoid in a house situated on the river bank a short distance above the pumping station. This case occurred in the early fall and was followed in the course of one year by two hundred and forty cases. A careful canvass was made afterward and in 95 per cent. of the cases the river water was used either at home or at their place of employment. This in brief is the history of so many epidemics that the fact cannot be ignored.

(3) *Infection of Food.*—Milk may be very easily infected by using infected water to wash the cans or by the dairyman coming in contact with the stools or linen of a patient in his own family. Germs may be easily conveyed in ice, salads, celery, vegetables, etc., and any food may be infected by the soiled fingers of the nurse or the patient himself. A fly which has alighted on linen soiled by typhoid excreta may contaminate milk or other food. Oysters may become infected in the process of fattening or freshening.

(4) *Contamination of the Soil.*—Pettenkofer holds that the poison is not eliminated from the body in a condition capable of communicating the disease directly, but that it must first undergo changes in the soil, which changes are favored by the ground water. Filth, bad sewers or cess pools can not in themselves cause typhoid, but they furnish the conditions suitable for the preservation of the bacilli and possibly for their propagation.

The facts ascertained with regard to outbreaks of typhoid fever are, briefly, that in very few cases is there any evidence of direct contagion from the sick to the healthy; in a considerable number of cases, especially of isolated cases, no direct or indirect contagion can be proved; in a large number of cases, especially in large epidemics, the disease arises among persons who drink unfiltered and unboiled water or milk contaminated with typhoid stools.

An interesting fact observed by other physicians and myself in St. Johnsbury, is that constant users of our river water seem to acquire, at least a partial immunity from the disease, whereas a stranger or one unaccustomed to its use is pretty sure to contract the fever if he uses it unboiled, during the progress of an epidemic.

Treatment—Prophylaxis.—To prevent the extension of the disease it is essential that everything coming in contact with the patient should be disinfected as well as all the excreta. For this purpose any of the reliable disinfectants may be used. As convenient and satisfactory may be mentioned carbolic acid in solutions of 1 to 20, bichloride of mercury 1-500,

and chlorinated lime. The stools and urine should be received in a bed-pan containing some antiseptic and should then be completely covered with the solution and allowed to stand for two hours before emptying. The bedding and clothing of the patient should be frequently changed and after soaking in a 1 to 20 solution of carbolic acid, boiled for two hours. The bed-pan should be rinsed out with boiling water and kept partially filled with one of the disinfectant solutions. The thermometer, syringes, feeding utensils, etc., should be carefully cleansed with the bichloride or carbolic solution each time they are used. The nurses and attendants should carefully wash their hands and soak them for a few minutes in a bichloride solution after handling the patient, bed-pan, thermometer, etc., or after giving baths. If they exercise proper care in this respect their danger is practically overcome.

Hygiene.—The patient should be at once sent to bed and not allowed to get up at all. The room should be as sunny and well ventilated as possible and kept at an even temperature of from 65° to 68°. A good mattress, protected by a rubber blanket, furnishes the best bed. The patient should be lightly covered and disturbed as little as possible. The mouth and teeth need to be thoroughly cleansed with some alkaline wash, as Seiler's solution, often enough to prevent the formation of any sordes. The body should be bathed twice daily.

Diet.—The diet should be bland but nourishing and given at regular and frequent intervals. Milk, broths, malted milk, barley water, albumen water, are all usually well borne. A variety in the diet is advisable when it can be secured, as the patient is very apt to tire of one thing if continued too long. For drink, pure water may be given freely and occasionally varied by lemonade or orangeade.

Fever.—In mild cases the fever itself requires little attention. When it persistently exceeds 102.5° or 103° it is best controlled by the use of cold water either in the form of the cold sponge bath, cold pack, or full tub bath. In our country practice, most of us find the cold sponge bath most convenient to employ and as a rule I have found it very serviceable in controlling the pyreia, especially if employed thoroughly and often. Antipyretics in drug form are seldom indicated and should be employed with caution. Phenacetine and phenalgin in doses of 5 to 10 grains are perhaps as safe as any.

Medical Measures.—In the attempt to combat the toxaemia of the disease many drugs have been advocated as intestinal antiseptics. Prominent among them we find calomel, salol, B Naphthol, carbolic acid and the sulpho-carbolates of lime soda and zinc. During the past five years I have used calomel at the outset, if the case was seen early and occasionally continued it in small doses for some time. The drug which gives me most satisfaction is a combination of the sulpho-carbolates given in five grain doses every two or three hours until the stools cease to be offensive and then continued about once in four to six hours. In spite of the fact that bacteriologists inform us that the bacilli still persist in a viable state in the stools when intestinal antiseptics are used, I am positive that I have seen marked amelioration of symptoms under the use of the sulpho-carbolates. Several cases that during the first week ran a high temperature and began to show signs of toxaemia, under this treatment promptly began to improve and pursued an uneventful course without any grave symptoms and without complications. While I have not treated enough cases in this way to gain positive proof of its efficacy, I am satisfied that in my hands it gives better results than any treatment I have used. Do not employ any but chemically pure sulpho-carbolates, as the commercial grades are irritating and not well borne.

Attempts have been made to produce an anti-toxin for typhoid, but so far without much success.

SPECIAL SYMPTOMS AND COMPLICATIONS.

Hyperpyrexia.—It is generally agreed that persistent hyperpyrexia is best treated by the full tub bath or cold pack.

Constipation as a rule can be overcome by enemata, either plain cold water or water with glycerine. When these fail small doses of castor oil, repeated until effect, are best borne.

Profuse Diarrhoea.—This requires treatment only when it is weakening the patient. I have not seen it occur when using the sulphocarbolates. To control it, bismuth subgallate, chalk mixture and the milder astringents should be first tried. If these fail the lead and opium pill should be used and given for effect.

Pain in the abdomen of ordinary severity can be relieved by either heat or cold. Cold applications are preferable if the fever is high.

Tympanites when severe, gives great discomfort and often is dangerous. Enemata of turpentine at hot turpentine stupes usually afford relief. At times the introduction of the rectal tube will bring away large quantities of flatus and grant a temporary respite.

Hemorrhage from the Bowels.—This, one of the gravest complications of typhoid, should be constantly looked for and guarded against. When it occurs, an hypodermic injection of morphine of ¼ grain should be given at once, the patient kept absolutely quiet and an ice bag applied to the abdomen. Ice should also be given by the mouth and all food be given ice cold. Large doses of acetate lead or gallic acid with opium are often of service. Turpentine in 10 minim capsules up to 3 drachms a day is highly recommended. Adrenalin or suprarenal capsules may also be given with benefit. Atropia given hypodermatically till flushing of face is induced has given good results.

To combat the effects of serious hemorrhages injections of normal saline solution into the subcutaneous tissue in pint doses gives the best results and may tide over the critical period.

Perforation.—Medical measures are here of little value. Immediate laparotomy, washing out the peritoneal cavity and suturing the intestines or establishing an artificial anus gives the best prospect of relief. Several cases have been reported in which this has been successful.

Heart Weakness.—The heart's action is best strengthened by the use of strychnia, digitalis, sparteine, alcoholic stimulants and ether (subcutaneously) in appropriate doses.

Convalescence. — After the temperature reaches normal there is still great need of careful supervision of the patient's diet and general management. The administration of solid or improper food and undue exertion too early in convalescence are frequently responsible for relapses.

CHLOROSIS.*

By Dr. W. E. Lazell, Barre, Vt.

In this paper I shall speak of chlorosis only as a primary affection. Anemic conditions simulating chlorosis are occasionally met with, however, in which the age or sex does not correspond to that usually observed, and in which there is found evidences of other forms of disease, viz., syphilis, tuberculosis, hemorrhage from gastric or intestinal ulcers or abortions. Chlorosis then considered as a primary or essential anaemia is a disease of the blood characterized by a peculiar pallor, evidences of anaemia and a reduction in the amount of haemoglobin. There is also in the majority of cases a reduction in the number of red cells, but this phenomenon is not so constant, neither

*Read at a meeting of the Washington County Medical Society.

is it of such importance as the reduction in the haemoglobin. While chlorosis has been known to occur among boys, it may be considered as essentially a disease peculiar to girls and occurring most frequently between the ages of 13 and 17, occurring as it does so frequently at a time coincident with the menstrual period, has caused it to be said that the age at which the symptoms develop was determined by the age at which menstruation appeared. While it would seem that this disease bears a close though undefined relation to the menstrual function, yet I hardly think it can be said that the menstrual function is responsible for the production of this disease; say rather that this disturbance is symptomatic of chlorosis. I have seen only one case occurring before the menses were established, but usually two or three years subsequent to this change. By reason of the age, sex and almost universal disturbance of the menstrual function I am forced to believe that this change in the economy of the girl is somewhat of an etiological factor in producing this disease, certainly this period is one of the most trying epochs in a girl's life. It is a time when growth is rapid, and normal development of muscle and nerve tissue is outclassed. Girls at this age are just entering the high school, their work is exacting and attended by severe nervous strain. It is a time when restraint and discipline is severe and they have not the freedom of earlier or later years, less time in the open air, more time struggling with mathematics or beginning classics.

Many theories have been advanced concerning the cause of chlorosis; the older writers attributed it to an intoxication caused by suppression or retention of blood in the uterus. The frequent occurrences of hysteria and nervous symptoms has caused a nervous theory to be advanced. The occurrence of dyspepsia and constipation has led some into the error of a digestive theory—changes in the intestines causing destruction of haemoglobin and constipation by causing an anti-toxaemia. Lack of iron in the blood is another theory, but all chloroics injest more iron every day than is essential to their economy.

Virchow claimed that in many cases chlorosis is dependent upon an imperfect development of the aorta whereby that vessel is comparatively small and that he had observed that the smallness of the aorta was dependent upon the smallness of the pulmonary artery, and recommended exercise to increase the capacity of the lungs. Together with other causes it has been mentioned that chlorosis was due to blood destruction and the spleen charged with this destructive process, which argument had for its foundation the fact that post-mortem in this organ leucocytes had actually been caught in the very act of injesting a red cell. This may go on to a certain extent post mortem, and even in health, owing to the greater vitality and peculiar nature of the white cell or it may be that the leucocyte had for its object the destruction of a worn out red cell.

Haemoglobin, being the parent substance from which is formed the bile and urinary pigments, it is reasonable to suppose, and undoubtedly true, that the red cells are constantly undergoing destruction somewhere in the blood stream, just where, when and how remains to be determined.

This is a perfectly normal and physiological process, and these pigments are very likely a by-product and the result of death of old and worn out cells. This destructive process is not supposed to be increased in chlorosis by reason of the fact that in the splenic vein the blood contains no haemoglobin in solution and that there is no increase in the amount of bile or urinary pigments. I think then, at the present day, it is quite generally believed that chlorosis is not a disease resulting from blood destruction; but a primary blood disease dependent upon disturbance of the haemopae-

tetic function, the ultimate cause of this disturbance being as yet obscure. I am of the opinion that overwork at school or at the piano, anxiety over examinations, immoderate dancing, too active participation in local entertainments, lack of personal hygiene and plain, coarse food are potent factors in producing this disease.

I would not pose as a critic on educational matters; but to my mind the hours for school, 7:45 to 1:15, while they may be popular and suited to the teacher or professor, are certainly not suited to the young girl's digestion. These girls are hurried in the morning and many times start for school without having tasted of food, not to mention attention to personal hygiene. When they arrive home at 1:30, dinner has been served and a suitable meal is not prepared for them. These things can not but lend their influences in the production of this disease, and if not directly responsible, serve to bring a predisposition into effect.

I think the majority of writers have found this disease quite as common in girls living in the country as in the towns; but from my experience, I have been led to believe that girls living in the towns and surrounded by luxuries and social position and whose general life seemed to leave nothing to be desired were even more prone to this disease.

Chlorosis develops insidiously, occupying weeks or even months before symptoms are of sufficient gravity to cause apprehension of impending danger. The girl first complains of feeling tired, becomes listless, easily exhausted and disinclined to exercise, and about this time menstrual disturbances begin to attract attention, usually delayed or scanty.

The appetite fequently fails and gastric symptoms are quite marked, some pain and a feeling of heaviness and oppression after meals, frequently acid stomach. On slight exertion palpitation of the heart and shortness of breath are observed. There is sometimes extreme nervousness and evidences of hysteria. The appearance of the girl is quite characteristic when the disease is fully developed. She is pale and the skin presents a yellowish hue, and a peculiar greenish-yellow hue has given to the disease the name of green sickness, and the technical term chlorosis.

The mucous membranes are usually paler, although there are those cases in which these surfaces retain their normal color by reason of vaso-motor dilation. Vaso-motor constriction is a common occurrence with resulting coldness of extremities and a clammy skin.

The menses may be regular and normal, but in the majority of cases they become scanty and may cease altogether. At other times the color being lighter is the only appreciable change.

It is in the blood that is found the principal pathological change in this disease and an examination of this tissue should be made in every case as an aid to diagnosis. The characteristic changes in the blood affect mainly the red corpuscles and consist in a reduction of these, but more especially a reduction in the amount of haemoglobin. It is due to the haemoglobin that the red corpuscle is so noted as an oxygen carrier from the lungs to the tissues, as this substance has the power of combining easily and in definite proportions with oxygen.

Haemoglobin is a very complete substance, belonging to the proteid group and when decomposed breaks up into a proteid globin 86 to 96 per cent., a pigment haematin 4 per cent. and an unknown residue. The exact amount of haemoglobin in the body is estimated on an average to be about 14 grams in every 100, or about 95 per cent. of the red cells.

Taking into consideration the fact that 95 per cent. of the red cells is haemoglobin and the biconcave form of the red cells, it is not difficult to see that when these cells are passing through the minute capillaries of the lung,

which are so small that the cells have to pass almost in single file, that a vast area of haemoglobin is exposed for the absorption of oxygen. Haemoglobin is also the iron carrier of the blood, and the fact that haemoglobin readily unites with oxygen is due to the presence of this element, so also is the specific gravity.

The proportion of iron is variable in different animals, but in the human subject it is such a constant quantity that having given the amount of iron an estimate of the amount of haemoglobin may be determined.

Knowing then the important part played by iron and oxygen in the human economy, one readily undersands why, when the haemoglobin is reduced to 30 or 60 per cent., shortness of breath, palpitation of the heart, pallor and general malaise are universal symptoms.

CONDUCT OF NORMAL LABOR.

By W. S. Marshall, M. D., Montpelier.

Obstetrical literature is full of reports of unusual cases and theories for the management of those abnormalities that occur but once or twice in five thousand, but how rarely do we see anything for the improvement of our conduct of normal labor. Is it possible that we have all reached perfection? In view of the fact that one may practice obstetrics for years and never see anything worse than a post-partum hemorrhage and that on the whole the number of really abnormal cases is meagre indeed, would it not be worth while to occasionally review and compare notes on the methods which concern the vast majority of mothers?

Shall we not find that complications occur less and less frequently as we become familiar with the normal mechanism and thus be able to forestall abnormalities as soon as they threaten? In presenting this paper I am not attempting to set forth any new or exciting theories that will revolutionize the practice of obstetrics, but merely review the situation in order to start the discussion.

What constitutes a normal case we all understand better than we can define, but since a definition may seem necessary I have referred to a recent text-book, which says that under the term normal labor are understood "instances where the foetus enters the pelvic inlet and emerges at the pelvic outlet after a fashion in accordance with the normal mechanism of labor. Engagement, descent, rotation, extension and delivery occur after that fashion which is essential for the welfare of the mother and child, under natural efforts and within the time limit which, for the individual case, is consistent with the conservation of the strength of the woman and vitality of the foetus.

If you ask me when the management of labor begins, I would say as soon as the physician sees the patient, and that should be as soon as she knows she is pregnant. It goes without saying that many cases require no treatment at all, but it is only reasonable to suppose that the woman who has lived under hygienic conditions and kept her general health up to a high standard approaches her labor in best, for her, possible conditions, and, other things being equal, will make the best recovery. It is the physician's duty to inquire into the patient's habits of life, exercise, diet, digestion and elimination and, in fact, everything which concerns her. It is essential that the bowels be kept free and the kidneys and skin perform their function. The urine should be examined at least every month up to seven months, and after that every two weeks. As to diet fads, so to speak, I have never seen anything but ill result. A woman should be fed in a way to keep *her* well in order that the child nourished by her blood may be in best condition. During pregnancy, most women suffer more or less from fear of the outcome,

Read at a meeting of the Washington Co. Med. Society.

born of bug-a-boo stories their friends have been kind enough to tell them, and during the preliminary visits much may be done to correct that. Nothing short of eclampsia is more wearing to the physician than a state of panic on the part of the patient and family, and the time to allay that is before it begins, by getting the woman to take a sensible view of the matter. This is especially true if she is primipara. Don't lead her to think that she is going into the valley of the shadow and can only come out by a miracle. Impress upon her the fact that pregnancy and labor are physiological and that a great many millions of people have been born and next to none of them killed their mothers by the process. Tell her that she simply has a hard day's work planned, but no more than she is able to do, and that she shall have help if she needs it. She should be told the kind of pain she is likely to have and that when the pains begin to be regular she is to notify the nurse and doctor, take a bath and put on clean clothes, then pay no more attention to her pains than she would to the same amount of menstrual discomfort. Get her accustomed to the idea that when one pain is over she is to forget it and not waste her nervous force expecting the next one. A nap between pains, even of two minutes, will be the best thing she can do for herself. Ask her not to try to assist her pains unless she is told to, but be ready to follow directions. If she has a mother or dear friend, arrange to have that sympathizer at least two miles away. Their sympathy will be just as useful at that distance and much less fatiguing. I do not find that it does much good to say these things after labor begins, she is then too full of nerves and misery to pay attention, but if she has it to think of beforehand, she comes to feel there is something for her to do besides endure and she is more likely to keep sane and attend to it. Moreover, she is looking at the matter with more of curiosity than anxiety and does not give so much thought to herself. I am accustomed to give the patient a list of things to have ready, such as bed-pans, syringe, sterile cotton, gauze, pitchers and basins, rubber sheets, etc.

If she is not going to have a trained nurse, I direct her how to do her own sterilizing, so that she becomes familiar with the paraphernalia, and it ceases to be alarming. If she wishes to avoid expense, the cotton and gauze may be replaced by pieces of old muslin washed clean, rolled up in bundles, steamed two hours, dried in the sun and never opened until the doctor asks for them. She should also have at least two pads sterilized in the same way, to protect the bed. She has the baby basket ready, with one suit of clothes, olive oil, powder, soap, wash cloth, soft towels, old linen and plenty of safety pins. However, it often happens that the doctor never sees the patient until called to her in labor. In that case, he can feel tolerably at ease if he has merely some antiseptic; still, an obstetric bag should contain forceps, dressing forceps, cotton-holder, needle-holder, sutures and needles, os scissors, tenaculum, hemostats, intra-uterine irrigator, glass catheter and fountain syringe, rubber gloves, lysol, bichloride, boracic acid in powder and solution with dropper in the cork, monsel powder, some stimulant such as aromatic ammonia, ergot or ergotole, or P. D. ergot aseptic with hypodermic syringe, and ether or chloroform, or both. I also carry morphine, Dover's, strychnia, bromide and quinine, which makes it unnecessary to carry a hand or pocket case. It is well to have along part of a roll of absorbent cotton. This does not make a heavy bag, and with these you can handle any normal and most abnormal cases. It seems unnecessary to carry sterilizing pans when you can send for them if you need them.

On being called, one inquires into the length of time pain has been felt, if the membranes have ruptured, and the state of bowels and kidneys if the patient has not been under obser-

vation. The woman then assumes dorsal position, while the abdomen is examined to ascertain position of foetus, heart sounds, strength, character and duration of contractions. Then, after carefully sterilizing the hands as thoroughly as for surgical operation, the vaginal examination is made. For this the patient may be in Sims or dorsal position, as convenient. The labia majora are separated with thumb and finger of left hand if examination is to be made with the right. The examining finger is not carried in past the rectum, as that is uncleanly. The first examination should be thorough and as few as possible made after that. In some cases, it is better midwifery to risk going without the knowledge gained by examination rather than chance any examination at all.

For use in sterilizing the hands, I prefer lysol in one per cent. solution, or P. D. corrosive sublimate soap; with either of these, no other lubricant is needed. The same may be said of creolin, but the odor of that clings longer and is more offensive. Bichloride is convenient, but said not to be effective and certainly is not pleasant to use.

The woman may remain up and do what she chooses until the os is dilated. As soon as labor has fairly begun, the bowels should be emptied by enema, and urine voided often during the first stage. The easiest way to arrange the bed is to make it up as it is to be used after labor is over; draw sheet in position and pinned. Over this place the rubber sheet, or oilcloth, or even a thick quilt, covering with a sheet extending over the whole bed. On this place a pad, which can be made very satisfactorily of a dozen sheets of newspaper tacked together, covered with a layer of cotton and this covered with a layer of cheesecloth or old muslin. This should be pinned to the bed and should be large enough to come well over the edge of the mattress, say one yard square. When the patient has to go to bed, it is well to fold her night dress up under her arms, pin it there so it will not get soiled, then put a folded sheet about her hips and legs after the manner of a skirt. When she lies down, she may assume the position she finds most comfortable until the presenting part reaches the pelvic floor, providing there is not some indication for change, such as nagging pains, obliquity of abdominal tumor, etc. For the last stage dorsal or Sims position may be assumed, but if the patient is on an ordinary low bed I find it more convenient to have her on her left side, with hips near the edge of the bed so I can sit at her back and manipulate the abdominal wall with my left hand while using the other to assist in delivery of the head. In delivering the head without injury to the perineum the essential thing is to maintain flexion, if necessary by one finger in the rectum pressing against the chin, until the sub-occipital point engages under the symphisis, when extension of the head may be allowed and it gradually slips out over the perineum, being held so that a strong pain may not force it suddenly into the world and rupture the soft parts. As the presenting part is born, it is supported with the right hand until restitution takes place, while the left hand follows the uterus down. This is especially important in breach presentation. It is well then to examine and see if the cord is around the child's neck. If so, it must be carefully slipped off.

Laceration from passage of the shoulders, if it threatens at all, seems to me much harder to avert than from the head. In case the shoulders are large it is well to try first to bring down the posterior arm across the chest. If this cannot be done easily, try the anterior. I must say I do not always find the sweeping down process as easy as it sounds, and sometimes I think the manipulation necessary, endangers the perineum as much as would the birth of the shoulders with arms in natural position. However, it is often necessary for

the safety of the child to hasten delivery at this stage and assistance may be rendered by hooking one finger into the child's axilla. To be sure, you always have visions of that brachial plexus that may be injured, but a moderate amount of force, if applied steadily, will cause no trouble.

After the birth of the child there is usually a rest of a few minutes before the placenta is expelled, during which time the physician keeps his hand upon the uterus to avoid undue relaxation, but it is better not to massage or make any effort to expel clots, since they aid in the separation of the placenta. When the uterus is felt to contract, the palmar surfaces of both hands may be used to reinforce the contraction, pressing the uterus toward the pelvic inlet. If this does not expel the placenta, wait for the next contraction and proceed as before. If the uterus is felt to get smaller and firmer, examine the vagina to see if the placenta may have been expelled from the uterus and lies in the passage. If so, traction on the cord while the patient bears down will deliver it. This is the only time when it is allowable to attempt delivery by the cord. Always wait at least one-half hour before delivering manually. If the membranes do not come easily, it is well to clamp with dressing forceps to prevent their tearing from the placenta outside the vulva; then wait until the uterus relaxes. Haste at this stage is likely to leave a portion of the membrane ripped in the cervix. Immediately the placenta and membranes are expelled a dram of ergot or one-half drachm of ergotole should be administered. It can do no possible harm and may save being called back in a hurry.

The pad, clots, etc., are removed, the woman washed with sterilized water, or bichloride 1 to 4000, and a vulvar pad applied. The abdominal band is a matter of individual preference, but seems to do harm if it does anything, while it certainly is not easy to keep watch of the uterus if it is strapped up in a binder. For keeping the pad in place, I like to use a T binder, made of a long linen towel folded twice, making four thicknesses about five inches wide for the cross portion. Another towel or strip of cloth folded to eight inches' width forms the T and is fastened to the cross portion with three pins. Into this T is placed a vulvar pad of sterile gauze or cotton. The cross portion of the T should not be fastened together in front of the abdomen, where it will have to be so loose that it will slip out of place, or so tight as to make the woman feel cut in two. It should be brought round over the hips and each end fastened to the T by two safety pins at either side and just about the pubic bone. This makes it possible to keep the pad closely and comfortably applied, leaving the abdomen easily accessible. Many patients seem to get comfort from flannel wet in alcohol applied to the abdomen for several hours after labor.

After the woman is washed, the sheets and rubber cloth and soiled clothing down to the bed proper are removed. The night dress, which is unsoiled, is drawn down and the patient is allowed to rest. Her pads should be changed as often as soiled, but unless the nurse is known to be careful it is better that the vulva should not be washed for at least forty-eight hours. Clotted blood is less likely to infect her than a surgically dirty wash cloth When the mother has rested an hour or so, the baby may be put to the breast, its mouth having first been washed out with boracic solution. The baby's mouth should always be washed before applying to the breast, to avoid infection of the nipple. Until the milk comes, the child may be allowed to nurse every three or four hours. Aside from the colostrum it gets, it will need very little nourishment, but must be given water several times a day and, if very hungry, a little sugar water may be given at intervals.

If the flow is greater than twice the amount of a normal menstrual period, ten drops of ergot are given every hour. The patient should

never be left until the nurse has been given instructions what to do in case of hemorrhage.

During the puerperium the temperature of the patient should be taken twice a day; the bladder should be emptied at least every eight hours by catheter if she is unable to void urine voluntarily. No harm is done by raising her to a sitting posture after the first twelve hours.

The matter of after pains occasionally becomes a serious question, but less trouble occurs if ergot has been given. Ten grains of bromide every four hours is usually all that is necessary for their relief, but if it proves insufficient, I find nothing better than ten grains of Dover's powder. If antisepsis has been observed, the lochia should have no odor. If so, possibly it is from clots in the vagina and a douche of sterile water may be given; otherwise douches should not be used. If the odor persists, and especially if temperature rises, a thorough examination of the whole parturient canal is called for. The diet should be light the first few hours, after which, if no complications rise, a patient may have anything that would be suitable for her before she is confined. The bowels should always be kept free by enema or laxative. Pads may be made sterile by baking, steaming, or the inner pad may be wrung dry out of bichloride solution. The patient may be allowed to move around in bed at will; after four days may be bolstered up on pillows a part of the time each day; if recovery is fairly rapid, she may be moved from the bed to a couch in ten days, sit up in two weeks and be walking around a little in three weeks. However, each case is a law unto itself, and it must be borne in mind that the uterus does not become involuted for at least six weeks.

In regard to anaesthetics, unless some organic disease of the heart or lungs there is no harm in anaesthesia to the obstetrical degree; that is, not to loss of consciousness. Instead of stopping contractions, a little ether often reinforces them. Even if anaesthetics are not given in sufficient amount to ease the pain at all, the patient often thinks they do, because she is thinking of that and not of the pain. Without going into the relative dangers of ether and chloroform in general, there are other reasons why one is more suitable than the other for certain cases of obstetrics. Sometimes you find a woman so susceptible to chloroform that a mere whiff will stop contractions; in that case, of course, ether is better. Again, the pains may come on so rapidly and forcibly that ether is too slow to obtund the pain at all. In case surgical anaesthesia is required, ether is preferable. Unless to augment pains, the anaesthetic is better left alone until the presenting part reaches the pelvic floor, when a little absorbent cotton may be put in a drinking glass, first wet to make the cotton stick, and a little of the anaesthetic poured on. The patient may be allowed to hold this glass herself, since if she gets enough anaesthetic to destroy reflexes the glass will fall from her hand.

For nagging pains due to rigid os, a hot sterile douche or lysol, one to one hundred, is often effective, and bromide does very well. If the labor is long and tedious, a moderate dose of Dover's powder secures rest for the patient.

CARE OF THE CHILD.

As soon as the child is born and breathing is established, the eyes should be washed, the lids everted and washed with boracic acid. If gonorrhea is suspected a two per cent. solution of silver nitrate may be applied to the lids and neutralized with salt solution. Mucous is then wiped from the mouth. It is better to do these things before tying the cord, unless there is difficulty in establishing respiration. For tying the cord, any material that is sterile may be used, but the best, perhaps, is a narrow linen tape. The cord is tied one and one-half inches

from the navel in a single knot, the suture passed around the cord again and tied in a surgeon's knot. A second suture is then applied four or five inches nearer the mother and the cord is severed near the first suture.

If the child does not breathe immediately after it is born, turning chest downward on the hand and shaking may elicit the cry; if not, sprinkling alternately with hot and cold water may be successful. If not so, then artificial respiration by nearly any method may be tried. The Byrd-Due method is preferable for a weak infant, because the body can then be kept under warm water and shock avoided. When the respiration is established, eyes and mouth washed and cord tied, the child may be rolled in a blanket, left in a warm place on its right side to take care of itself if there is not plenty of help, until the mother has received necessary attention. If help is plenty, the child should be oiled with olive oil, vaseline or lard, face and head washed and dried, then, resting on the nurse's hand, the body is immersed in water of temperature from 90 to 95 degrees Fah. It should be thoroughly soaped and all folds and wrinkles carefully cleansed; then lying on a blanket on the nurse's lap each part of the body is carefully dried and flexures powdered. To dress the cord, anything that is aseptic may be used, the main object being to keep it dry and sterile that it may wither and fall off quickly. There is no better dressing than boracic acid powder and the old-fashioned scorched linen with a slit in it. The band is applied firmly, the child dressed and given a little cool boiled water, when it may rest again until time to be put to the breast.

After all, the practice of obstetrics may be summed up in the old advice, so patience-trying at times, "Watch nature, assist in her own fashion if at all, don't assist as long as she is doing the work. If you can't do good, do nothing." Maintain asepsis, wait and keep your nerve. No telling when you may need it.

NEWS, NOTES AND ANNOUNCEMENTS.

Burlington and Chittenden County Clinical Society—The regular annual meeting was held at 162 College street, Wednesday, November 30, 1904, at 8:30 P. M. Following is the program:

The Secondary Action of the Digestive Juices, Dr. C. F. Dalton.

The discussion was opened by Dr. Lyman Allen.

J. C. McConaghey (*Brit. Med. Jour.*) practices a very simple method of arresting an epileptic fit. He turns the patient on to the left side as soon as the fit begins, and holds him in this position. Nearly all the recorded cases were treated in the "tonic spasm" of the fit, and in most cases the muscles all became flaccid, and the color of the face improved, and no "clonic spasm" supervened.

Recent Deaths.—Walter S. Carr, M. D., University of Vermont Medical Department, Burlington, 1884, member of the Massachusetts Medical Society and the North Berkshire Medical Association, died at his home in North Adams, Mass., from tuberculosis after a long illness, aged 43.

Physicians desiring to contribute papers upon Internal Medicine at the next meeting of the Pan-American Medical Congress, which meets at Panama, January 2-6, 1905, will kindly send titles at their earliest convenience to the secretary of the Section on Medicine, Dr. Judson Daland, 317 South 18th street, Philadelphia, Pa.

Our Railroad Slaughter.—There is something rotten in the railroad management that makes so many disasters possible. A recent bulletin of the Interstate Commerce Commission states that in the last year 9,984 persons were killed and 78,247 injured in railroad accidents of one kind or another in this country. There has been a continual increase in the number of fatalities, and the record of ten years shows a death list of over 78,000. These casualties are due to all manner of defects in construction and management, weak bridges and trestles, concealed curves, grade crossings, deficient signal appliances and every variety of negligence and carelessness. At the bottom seems to be a reckless disregard of human life, which prevails on not only railroads, but on steamboats and in the streets and highways.

There are about 50,000 miles of railroad track within the restricted area of Great Britain to the 200,000 miles of this country. There is a much heavier volume of business per mile, and there are actually more passengers carried in a year than here; but last year not a single passenger was killed on the English railroads. The roads are practically all double-tracked and free from grade crossings, but nothing is omitted in the way of safeguards in signalling and in a discipline that insures strict observance of regulations and obedience to orders that are carefully devised for security against every chance of accident. Even in the most highly developed part of this country, near the cities of the Atlantic seaboard, there is still deplorable lack of regard for safety in the construction and management of railroads. The trouble seems to lie in an all-prevailing indifference of inertia, such as permits automobiles to race through streets and over country roads to the peril of life and limb. There will be no cure until the spirit of the people is aroused and sustained to insist upon the vigorous enforcement of adequate legislation for the protection of human life against the reckless and the brutal. Railroads, especially, should be held responsible in heavy damages for every loss of life or injury to person that is due to causes that good management could avoid.—*New York Journal of Commerce.*

Portland, Oregon, in 1905.—The date set for the next session of the American Medical Association is July 11-14, 1905. This date has been decided on after considerable correspondence. The holiday season for the majority of medical men is from about the first week in July to September and the schools have by that time all closed. Most of those who live in the East will want to utilize the trip to the association meeting as their summer vacation, says the *J. A. M. A.*, and if the date were that usually adopted for the association meeting, these would not be able to attend. In July Portland has a delightful climate, and consequently there need be no fear of hot weather.—*Am. Med. Journalist.*

The Local Treatment of Erysipelas with Acetozone.—Dear Sir: I had an ugly case of facial erysipelas in a woman of about thirty-eight years. I used as a local application, to begin with, a saturated solution of boric acid, and depended largely upon tincture ferric chloride as an internal remedy. I got the attack under control and supposed I would have no further trouble, but all at once the disease began to spread over the scalp. The usual remedies did no good. I thought that if Acetozone was the germ destroyer it was represented to be, it should be of use to me. So I made a solution of fifteen grains to two pints of water and used it freely on the scalp. I obtained results at once, and in twenty-four hours the disease had abated.

J. Knowles, M. D.,

Logan, Iowa.

The Vermont Medical Monthly.

A JOURNAL OF REVIEW, REFORM AND PROGRESS IN THE MEDICAL SCIENCES.

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Burlington, Vt., November 25, 1904.

EDITORIAL.

THE GROWING QUESTION OF CANCER.

In our June number there appeared an article by Dr. Roswell Park, duly credited to the *Buffalo Medical Journal,* in which the distinguished surgeon stated that there were 5,456 deaths from cancer in New York State last year, it coming eighth in the list headed by acute respiratory diseases, 17,339, and tuberculosis 13,194. Dr. Park has expressed the opinion that in a few years cancer will change places as to frequency with tuberculosis. He deplores the fact that we have not yet been able to demonstrate with absolute certainty its microbic nature. My object in writing this short article is to beg that the readers of the journal will have faith in the statement which I have already made and believe in more than ever, that cancer is a highly contagious disease, and that it can be stamped out completely just as easily as tuberculosis can and is being done. Remember that thirty years ago no one could prove absolutely that tuberculosis was contagious and that those who doubted its heredity and even hinted that it was due to a microbe, were regarded as the victims of a mild form of insanity. Even ten years ago the insurance companies who were losing a hundred million dollars a year from tuberculosis never made any inquiry whether their clients lived in a house with a consumptive, but were most particular in knowing whether the grandparents had died from it. But all that is changed now and many of us believe that in twenty-five years tuberculosis will be a curiosity of the past. Let every reader of this journal become a missionary for the spreading of the gospel that cancer can be stamped out by early operation where this can be done and by isolation in the other cases, and by vigorous disinfection of the hands by patient, physician and nurse, and they will have the satisfaction experienced by the writer of these lines, that cancer is becoming more rare every year not only in his own practice, both public and private, but in that of his friends, who by having all the lacerated cervices repaired early have cut down the most fertile evil, and by having the few remaining cases of cancer operated upon early have cut down the number of infecting centres. In ten and a half months of this year the writer and all his pupils and other friends put together have only been able to find a half dozen cases, of whom four were advanced and had the uterus removed to stop the absorption of poison by the patient and the spreading of contagion, and two early cases who had clean curative hysterectomies. Twenty years ago before he had made it a duty to amputate or repair every lacerated cervix he used to have that many cases of cancer of the uterus in one month. In a private letter recently received, Dr. Craig of Boston states that his experience has been the same, and there is no reason why this happy result may not be observed by every family physician in Vermont.

A. LAPTHORN SMITH.

THE ANNUAL MEETING of THE STATE MEDICAL SOCIETY.

The annual meeting of the Vermont State Medical Society at Rutland, Oct. 14 and 15, was one of the most interesting and enjoyable in the history of the organization. Under the presidency of Dr. W. N. Bryant of Ludlow, an unusually strong scientific program was presented. The individual papers were well discussed, and although fewer in number, the quality was fully up to the high standard of former meetings.

The local committee of arrangements were very successful in their efforts in behalf of the meeting and the entertainment was all that could have been desired. The exhibits this year were numerous and instructive, and very popular with the members in attendance.

The banquet at the Berwick was one of the best in years. Contrary to the usual custom, ladies were invited this year, and nothing but words of commendation were heard for this innovation. Their presence certainly added to the affair, and it is to be hoped that they will never be absent from future annual banquets. Dr. Don D. Grout of Waterbury, as anniversary chairman, presided with dignity and ability. His introduction of the speakers, like everything else that Dr. Grout undertakes, was done as most people like to see them done—neatly, briefly and intelligently.

Dr. Bryant, in responding to "The State Medical Society," spoke with his usual charm. In the course of his remarks he read a short poem which was a gem of humor and sentiment, and which the large number present thoroughly enjoyed.

Col. Frank L. Greene, editor of the St. Albans *Messenger,* was another speaker. Col. Greene made one of the best speeches heard in years, and it was a model of humor, good language and eloquence.

Other speakers of note were Drs. Hawley, Caverly, Tinkham, Peck and Mr. P. M. Meldon of Rutland. Mention of these names is sufficient to indicate the wealth of good speaking and good fellowship that characterized the annual banquet of 1904.

The whole meeting was a success and no stronger compliment can be paid to those who were responsible for it. Great satisfaction was felt at the election of Dr. P. E. McSweeney, one of Burlington's leading physicians, to the presidency, and the re-election of Dr. G. H. Gorham of Bellows Falls as secretary. Dr. Gorham has labored with efficiency and diligence for the Society, and his re-election, which was a foregone conclusion, was a deserved tribute to the man and the secretary.

The next meeting is to be held in Burlington.

EDITORIAL NOTES AND CLIPPINGS.

Should the Physician Patent His Rights?—G. Frank Lydston, writing in the *New York and Philadelphia Medical Journal,* Sept. 3, 1904, believes that by the patenting of surgical instruments the following benefits would accrue to the profession:

1. The physician inventor would get the benefit of his ingenuity just as laymen inventors do.

2. He would protect himself against dishonest men in his own profession, who steal his ideas and publish them as original, and who possibly, not content with stealing the products of his inventive genius, claim as their own the operation which the invention has made possible.

3. The question of priority in surgical invention and operation would in many instances be settled once and for all.

4. Competition and invention would be stimulated, and the best brains of the profession would be devoted to new inventions.

5. The profits now monopolized by the surgical instrument maker would be participated in by the men who furnish the ideas. I am aware that the instrument maker will have a counter plea upon this point, and state that a large proportion of the alleged inventions of medical men are really designed by the instrument maker, the doctor's name being used in connection with them to boom their sales. Very good. The patenting of surgical appliances would put a stop to this arrant fraud, and give the instrument maker what was legitimately his due. The rule would work both ways. The instrument maker who invented a valuable instrument would get not only the profit but the reputation incidental to its invention. This would be only just.

6. A better class of instruments would be invented, and there would not be in our offices so much metal and glass to be consigned to the dead lumber room of blasted hopes in medical and surgical inventions.—*Med. Times.*

MEDICAL ABSTRACTS.

Camphor a Valuable Adjuvant in Tuberculosis.—For five years Koch (*Berliner Klin. Woch.*, XLI., No. 18) has been making systematic use of camphor in pulmonary tuberculosis. At first he gave it in subcutaneous injections of 1 gm. of camphorated oil daily for four days with ten-day intervals. His results were extremely satisfactory, but the injection method has its drawbacks, so he gives the camphor now in inunctions. He makes a salve with about 4 gms. camphor in the amount rubbed in at one time. He uses percutilan as a vehicle, a new substance which he says "actually slips through the skin." A little balsam of Peru is added and eucalyptus and rosemary oil. These inunctions are made by the patient on five successive days and then a ten-day pause. The amount of sputum increases remarkably by the second day and then expectoration almost ceases, while the other symptoms are correspondingly improved. Equally favorable results were observed in emphysema and bronchitis.—*Journal of the American Medical Association.*

Intubation.—Biernacki and Muir (*British Med. Jour.*, May 14, 1904) from their experience would use intubation as a treatment in laryngeal diphtheria as against tracheotomy in the absence of clinical contraindications. Among these they mention severe involvement of the fauces and nasal passages, though even in severe cases intubation is not often contraindicated. With palpable edema of the upper part of the larynx, ulceration is a danger in some cases. The presence of membrane low down in the trachea as a contraindication is in doubt. In two cases intubation gave relief, although subsequent casts showing the bifurcation of the trachea were coughed up. The last condition noted is a moribund condition referable to obstruction, and there is a possibility that the temporarily increased asphyxiation involved in intubation is inadmissible in such cases. An extensive broncho-pneumonia as a contraindication is considered, and they doubt whether intubation has really an effect on it. If there is much tenacious sputum, intubation may be rendered ineffectual by constant blocking of the tube, but such a contingency cannot well be foreseen. If there should be a severe blocking of the tube and intubation only partially relieve it, tracheotomy would have to be performed; otherwise time should be allowed for the child to settle down. They do not believe in retention of the tube under ordinary conditions past the fourth day. It should then be taken out, and kept out, if possible.—*Journal of the American Medical Association.*

STRAY THOUGHTS.

A POSSIBILITY.

If this little world to-night
  Suddenly should fall through space
In a hissing, headlong flight,
  Shriveling from its face,
As it falls into the sun,
  In an instant every trace
Of the little crawling things—
  Ants, philosophers and lice,
Cattle, cockroaches and kings,
  Beggars, millionaires and mice,
Men and maggots—all as one
  As it falls into the sun—
Who can say but at the same
  Instant from some planet far
A child may watch us and exclaim:
  "See the pretty shooting star!"

—*Oliver Herford.*

"Pluck wins. It always wins, though days be slow and nights be dark twixt days that come and go. Still pluck wins. Its average is sure. He wins the fight who can the most endure, who faces issues and who never shirks, who waits and watches and who always works."

NEWER REMEDIES.

Hagee's Cordial of Cod Liver Oil Compound is one of the most popular cod liver oil preparations on the market. All the nutritive properties of the oil are retained and the disgusting and nauseating elements are eliminated. Combined with hypophosphites of lime and soda it offers to the profession a reconstructive of great value.—*St. Louis Medical Review.*

Every Physician Knows.—In the *North American Practitioner*, under the head of "Intestinal Antisepsis," reported by Dr. Pettingill of New York city, we find some excellent experiences and from which the following is selected:

"Every physician knows full well the advantages to be derived from the use of antikamnia in very many diseases, but a number of them are still lacking a knowledge of the fact that antikamnia in combination with various remedies, has a peculiarly happy effect; particularly is this the case when combined with salol. Salol is a most valuable remedy in many affections; and its usefulness seems to be enhanced by combining it with antikamnia. The rheumatoid conditions so often seen in various manifestations are wonderfully relieved by the use of this combination. After fevers, inflammations, etc., there frequently remain various painful and annoying conditions which may continue, namely: the severe headaches which occur after meningitis, a 'stitch in the side' following pleurisy, the precordial pain of pericarditis and the painful stiffness of the joints which remain after a rheumatic attack—all these conditions are relieved by this combination called 'Antikamnia & Salol Tablets,' containing 2½ grs. each of antikamnia and of salol, and the dose of which is one or two every two or three hours. They are also recommended highly in the treatment of cases of both acute and chronic cystitis. The pain and burning is relieved to a marked degree. Salol makes the uric acid and clears it up. This remedy is a reliable one in the treatment of diarrhoea, entero colitis, dysentery, etc. In dysentery, where there are bloody, slimy discharges, with tormina and tenesmus, a good dose of sulphate of magnesia, followed by two antikamnia and salol tablets every three hours, will give results that are gratifying."

An Up-to-Date Iodine Preparation.—Iodine remains one of the best alteratives in our armamentarium. Whenever it is indicated calcium iodized (Calcalith) will prove the best

This preparation has won a reputation as the remedy for croup, but it is equally effective in most bronchial affections. Iodine is set free in the stomach and is eliminated largely through the mucous membrane of the respiratory tract. Thus infective and inflammatory processes are speedily controlled. In local dis-

eases (croup, diphtheria, etc.) there is no question but that the combined action of the lime and iodine upon the morbid tissues has beneficial effect and it is advisable always to give the powder dry upon the tongue in such cases, instructing the patient to swallow slowly. Infants and small children will make some fuss over taking the powder, perhaps, but once on the tongue it has to go down and the results pay for the trouble. Where the powder cannot be taken or where the patient is very young, a solution should be made and ten to twenty drop doses measured with a dropper should be given. The solution is best made with hot water and when dose is required the bottle should be well shaken. If the lime is allowed to settle the fluid given is merely an aqueous solution of iodine.

Catarrhal Deafness.—A young man, 22 years old, a student in the Buffalo University, consulted me for chronic catarrh of the nose and inner ear. This trouble was so bad that the patient could not hear a watch tick when placed against the ear on the right side. The left ear would catch a faint tick at six or eight inches. The nose and ear had received treatment from some of our best specialists with little or no improvement. I placed the case on Glyco-Thymoline to be used three times a day in the nose with nasal douche and a tonic of elixir calisaya, strychnine and iron, and the improvement was marked in a few days. The hearing is nearly normal and he is still using the Glyco-Thymoline daily, with steady restoration of health in both nose and hearing. I am opposed to the majority of proprietary medicines, but in this case much has been accomplished, and I firmly believe will produce a permanent cure.

David Fawdrey, M. D.
Watertown, N. Y.

A Few Practical Points in Infantile Anaemia.—Infantile anaemia always manifests distinctive, objective and subjective symptoms of mal-nutrition, of which the most prominent is a lowered blood standard. Disease of childhood shows more pronounced changes in the blood than does disease of the same class in the adult; therefore a careful study of the blood is invariably necessary and yields points of greatest importance in deciding the best method of treatment.

There is still a great deal to be determined about the marks of distinction between the normal and abnormal conditions of the blood in children; much has been developed but there is still much to be learned. In the transition from infancy to childhood, the process of the development of the blood is going on and it is often hard to determine whether a certain case is normal or abnormal in the condition of the blood. For instance, the percentage of haemoglobin which is, in proportion, higher at birth than in adult life, may fall within the first few weeks of life to fifty per cent. and still not be abnormal. It is, therefore, for the busy practitioner, no less than for the one not so proficient in haemotology to have some simple, reliable and easily practical methods of ascertaining the exact blood condition. When this knowledge is obtained a diagnosis can be made. To obtain this practical knowledge, no special skill is required; the ordinary use of the microscope, haemoglobinometer, and harmocytometer, can with a little patience, obtain the necessary data. It is now conceded that aside from chlorosis nearly all cases of anaemia in children are of secondary origin, consequently it is not difficult to ascertain the causes. The tendency may be transmitted from the anaemic, poorly nourished patient; in sufficient quantity an improper kind of food is usually the chief cause. The infectious or constitutional conditions such as rickets, syphilis, tuberculosis, malaria, rheumatism, etc., are responsible for the great majority of cases of secondary anaemia, and usually present one or more distinctive symptoms indicating their origin. The thing most desired in the treatment of these conditions is naturally to remove the cause, which is sometimes possible, but not always; a careful study of the blood should be the first step, after which its proper treatment, for by this means one can often remove the subjective symptoms of the anaemia, thereby making the patient more comfortable as well as reinforcing the treatment of the cause.

In the endeavors to restore the normal standard of the blood in cases of secondary anaemia, dietetic and hygienic measures are of greatest importance. A careful study of many cases shows conclusively that a large proportion of the cases which owe their origin to conditions prevalent among the poorer classes —improper food, poor air, lack of exercise— form of the drug, as it is readily absorbed and never causes symptoms of iodism, even though taken for prolonged periods.

are the prime causes. A correction of these defects with proper feeding, fresh air and tonic, will bring about the desired results without the necessity of much drug medication. But in those cases in which the anaemia is secondary to the infections, the diathetic or hygienic measures can be supplemented by the application of proper medication; the treatment then becomes one of removing the cause of the anaemia, at the same time reinforcing the system by proper nutrition. The most frequently employed drugs as blood reconstructors, are iron and arsenic, but their field of usefulness is limited. They undoubtedly produce a tonic effect by stimulation, but lack the proper elements to build up the newly born cells as the result of this stimulation, consequently their therapeutic value is limited and something more complex is required. Too short a space is allowed to enumerate the many cures laid down by various cliniations in the treatment of anaemia. All have virtue more or less, none are complete. Most of the tonics of iron will increase the blood cells without a corresponding increase in the haemoglobin, consequently, many of the new born cells never reach maturity but become shrivelled, disintegrated or paralyzed as a result of the malnutrition. With this clinical picture before me I naturally sought for something that fully covered the field, in other words a tonic, stimulant and complete food. The combination of the three making the essential whole I found in Bovinine, and its employment in many cases has proven it to be a most valuable diathetic and therapeutic agent.

T. J. Biggs, M. D.

SPECIAL THERAPEUTIC ARTICLE.

PEPTO-MANGAN: ITS THERAPEUTIC ACTION.

By Otto Roen, M. D., Vienna, Austria.

As early as 1849, Hannon demonstrated the presence of manganese in the blood, and in the same year Petrequin showed that iron and manganese decrease to the same degree in the blood of chlorotic persons, and therefore must be replaced in an equal measure. In 1857 Menke called attention to the pharmacodynamic significance of manganese in the mineral waters of Pprmont, while Ruhle ascribed chlorosis to an impoverishment of the blood in manganese or iron or both conjointly. The most recent researches have not only confirmed these statements, but have demonstrated that manganese acts more powerfully upon the oxygen of the blood than iron, and hence promotes assimilation more energetically than the latter. That nothwithstanding these initial experiments, the therapeutic use of manganese has fallen into oblivion, is attributable to the fact that hitherto it was not found possible to combine both these hematogenic elements in a form in which they could be easily absorbed.

If in the search for a preparation fulfilling these requirements we review the inorganic compounds thus far known, we learn both on the ground of theoretic considerations and practical experience that neither oxidules nor soluble or insoluble oxids, neither acid nor alkaline combinations of iron and manganese respond to the moderate demands.

Even the organic preparations heretofore produced—the iron albuminates and iron peptonates—suffer from similar disadvantages as the inorganic. The albuminate of iron is held in solution by a comparatively large amount of caustic soda, which neutralizes the gastric juice, while a decomposition takes place with the formation of the irritant chloride of iron. On the other hand, the peptonates of iron are rendered soluble by the addition of a relatively large quantity of mineral acids, and consequently are precipitated by the alkaline intestinal secretion and rendered more difficult of assimilation.

All the chalybeates hitherto in use therefore do not satisfy the chief requirement demanded of them, viz.: a neutral reaction; moreover, they lack one important factor against chlorosis, anemia, and allied conditions—manganese.

In the Pepto-Mangan of Gude it has been found possible to unite all the advantages and eliminate all the disadvantages referred to above. It contains iron and manganese in a neutral combination with peptone. As will be seen from the literature published, this form, according to clinical experiments extending over ten years, has proved to be the only one in which manganese plays a prominent part as an oxygen carrier in the function of the blood.

Dr. Heitzmann, of Vienna, recommends during medication with Pepto-Mangan, a diet consisting of milk, the red kinds of meat, es-

pecially ham, poultry and soft boiled eggs, and other easily digestible foods. He has successfully employed the preparation in a number of cases, both in chlorotics and in girls and women who had become anemic in consequence of repeated losses of blood (monorrhagia, metrorhagia), or after recovery from inflammatory processes of the pelvic organs (periand para-metritis), as well as after long existing catarrhal discharges from the genital organs (leucorrhea).

In most every instance he was able to observe a rapid increase of the appetite and an improvement in the bodily nutrition, a healthy color of the face, a gain in weight, and, on the other hand, a disappearance of the weakness and digestive disturbances. Heitzmann mentions with particular praise that Pepto-Mangan, as compared with similarly acting preparations, was gladly taken by the patient without any deleterious after effect, even during prolonged use. The fact that it is so well borne depends upon the pleasant appearance of the clear, dark, red fluid, and its agreeable non-metallic and non-astringent taste. It does not act injuriously upon the digestive organs like other chalybeates, but, on the contrary, increases the appetite.

Dr. E. Hoenigschmied, of Weistrach, reports several very instructive histories of cases, of which we will reproduce one here in abridged form. Rosa H., 26 years old, has suffered since a number of years with chlorosis. The mucous membranes were pale, the pulse 140, small and thread like; the appetite was impaired; the stools irregular. The patient complained of lassitude, vertigo, tinnitus, dyspnea, and palpitation of the heart. As various other chalybeates were not well tolerated, because they produced a feeling of pressure in the stomach, and nausea, Honigschmied ordered Pepto-Mangan, in doses of one teaspoonful, twice daily, in some milk, besides aqua laurocerasi, in soda or raspberry juice. She was nourished exclusively on milk, with barley water and clear meat broth. After a few days the malaise and nausea subsided, so that the aqua laurocerasi could be discontinued, a desire for food manifested itself, and the patient was able to take besides milk some beef, a soft egg with a roll, and the like. The dose of Pepto-Mangan could now be increased to three teaspoonfuls, and later to three tablespoonfuls, daily. At the end of six weeks her condition had so much improved that she was able to take a walk of three-quarters of an hour's duration without any weariness. The pulse had become quite vigorous, being 80 to the minute. The mucous membranes had a healthy color.

The other cases corresponded to that just mentioned in regard to the action of the preparation, which, according to Dr. Hoenigschmied, is superior to any other ferruginous remedy.

Dr. Ripperger justly excludes as inconclusive evidence of the efficacy or inefficacy of a ferruginous preparation those cases of improvement in the quality of the blood from its use, in which the anemia follows profuse hemorrhages or extensive operations, or those cases of anemia due to gastritis in which both these conditions receive treatment, since it is impossible to determine how much is to be attributed to the action of the chalybeate and how much to the natural regeneration power of the organism. Furthermore, those experiments are indecisive which are made on patients who have been only a short time in a hospital, because persons of the poorer class here obtain a more substantial diet, those of the wealthy class a more wholesome one, and this in itself is calculated to improve the quality of the blood. To permit of an objective conclusion only those cases of pure essential chlorosis are left which are treated in ambulatory practice, since their mode of life, conditions of nutrition and work remain practically unchanged before and during the use of the iron preparation which is being tested. Whatever improvement is then obtained in a case of chlorosis can thus be ascribed in great part to the medicament employed.

In accordance with these very rigorous requirements, Dr. Ripperger made his experiments with Pepto-Mangan in the German Dispensary of New York. In these carefully selected cases the preparation was employed to the exclusion of any other treatment, and in 92 per cent. a considerable increase of the percentage of hemoglobin was obtained. In a few other cases the result was negative. In all the successful cases the subjective condition was materially improved. Deleterious effects upon the stomach and intestinal canal were not complained of by any patient, and it was, as a rule, gladly taken.

This author, therefore, designates Pepto-Mangan as a very useful and easily assimilable, ferruginous preparation, which does not

tax the digestive organs, and which deserves general consideration and use in the treatment of chlorosis.

A very extensive test of Pepto-Mangan has been undertaken by Dr. Pohl, of Vienna. In conducting these experiments he made determinations of the bodily weight, the condition of blood pressure, the proportion of hemoglobin, and the number of blood corpuscles.

As regards the bodily weight, a reduction was observed in sluggish, obese, chlorotic patients, and an increase in lean persons, of course, in connection with an appropriate regulation of the diet. An improvement of the general condition always accompanied this.

There was constantly a change in the condition of blood pressure in the form of an increase of 60 to 80 mm. The variations of blood pressure in changes of posture disappeared; the pulse frequency fell considerably, and in connection therewith the unpleasant palpitation of the heart subsided.

There was frequently a rapid increase of the percentage of hemoglobin and the number of blood corpuscles. As evidence that Pepto-Mangan stimulates the blood-generating organs to greater activity, Pohl was able to note in numerous instances the appearance of so-called immature forms of blood corpuscles. This assumption is supported by the fact that in disease of the blood-forming organs, as derived from the administration of Pepto-Mangan, so that even in severe cases the process was arrested and the glandular swellings were decreased.

In hysteria, neurasthenia, and malarial cachexia, the preparation proved of conspicuous service.

Pohl therefore predicts for Pepto-Mangan a permanent place in the pharmacopeia.

Dr. Frieser, of Vienna, has presented the most recent report on this preparation. He found that excellent results were obtained not only in primary anemia and chlorosis but in all those diseases which are accompanied or followed by anemic conditions. Its action in scrofula and rickets was usually very satisfactory, and no less favorable in the initial stages of tuberculosis, where symptoms of anemia are frequently noticeable. This also applies to conditions of weakness and to convalescence from acute febrile exhausting diseases (pneumonia and typhoid), as well as to debilitating chronic affections which are frequently attended with anemia, such as tuberculosis, malaria, protracted gastric catarrhs, and other ailments in which the use of roborant and tonic remedies is indicated. Pepto-Mangan showed to particular advantage in weak anemic children with reduced nutrition and in the anemia of women, especially after large losses of blood, in which after a comparatively short period of administration (five weeks) a marked improvement both of the general condition and appearance of the patients, as well as of the character of the blood, manifested themselves.

Frieser regards Pepto-Mangan as a very efficient medicament which is entitled to a prominent place among the ferruginous preparations in ordinary use.

Finally, we would briefly recapitulate the observations published in this journal by Dr. Metall.

Twenty-three cases were treated with Pepto-Mangan, of which twelve showed a normal hemoglobin percentage at the end of fourteen days, five after three weeks, and five after a month. One patient, however, afflicted with a hereditary disposition, showed after two months' treatment only an increase to 75 per cent. In two cases of acute anemia, following a profuse hemorrhage, a favorable result was likewise obtained. In three women who had aborted during the first months of pregnancy, and made slow recoveries from the resulting anemia, a complete cure ensued after four weeks' use of Pepto-Mangan. In six cases of weakness and impoverished blood, after chronic and exhausting diseases, a subsidence of the feeling of weakness and considerable improvement of the general health were observed. Unpleasant by-effects were never noticed.

I cannot conclude my review of the chief publications in the literature of this subject without pointing to the gratifying fact that the Pepto-Mangan of Gude has secured a firm place among the most favored remedies, far beyond the borders of our country.

I would refer here only to two articles that appeared in the *New York Medical Journal,* by Dr. Hugo Summa, professor of pathology and pathological anatomy, and the other by Dr. C. A. v. Ramdohr, professor of gynecology. Judging from these two reports, both these American authors, while resorting in part to other methods of examination, reached the same results in regard to the effect of Pepto-Mangan in primary and secondary anemia as their European colleagues.

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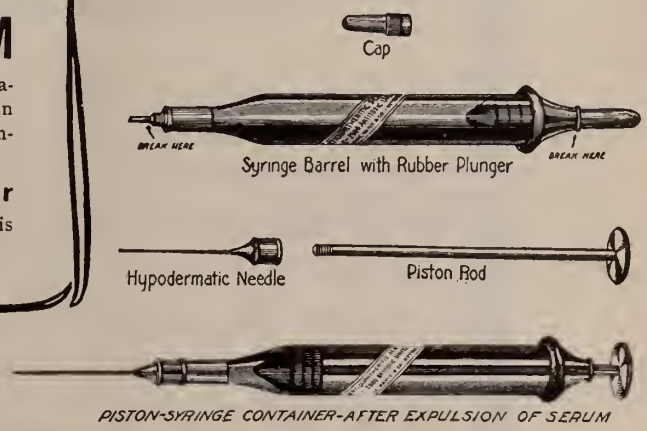

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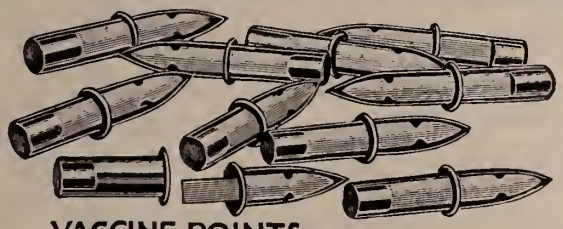

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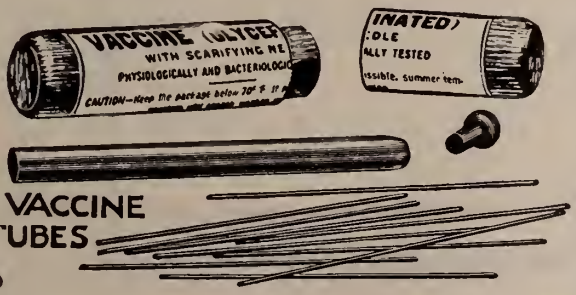

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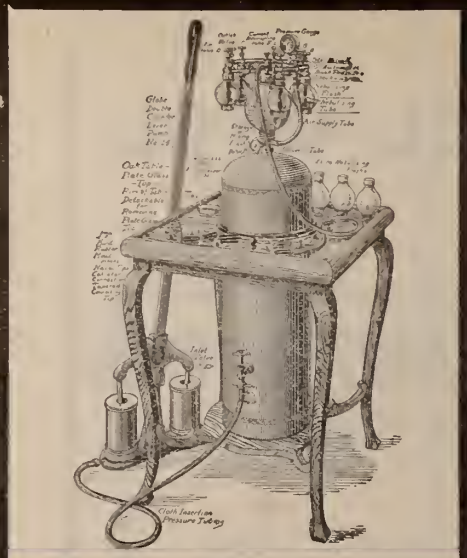

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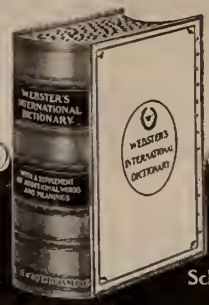

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Vol. X. No. 12. Whole No. 120. | Burlington, Vt., Dec. 25, 1904. | $1 per year. Single copies, 15 cts.

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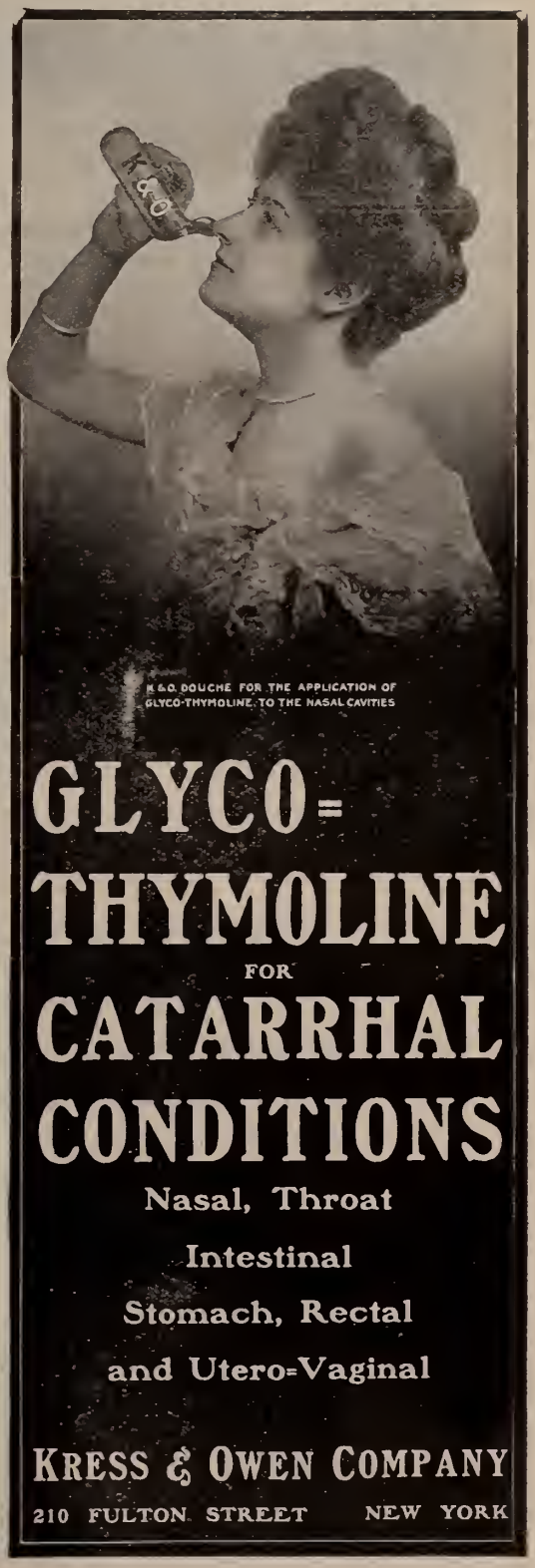

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The Vermont Medical Monthly

Vol. X. December 25, 1904. No. 12.

ORIGINAL ARTICLES.

INFLAMMATION AND ULCERATION — of the — SIGMOID FLEXURE

By D. C. Hawley, A. B., M. D., Burlington, Vt., Attending Surgeon Mary Fletcher Hospital, Attending Surgeon Fanny Allen Hospital.

Literature upon the subject of disease of the sigmoid is sadly lacking. That text books upon medicine and surgery devote little attention to the subject goes to show a lack of appreciation by the profession of the fact that such disease is of quite common occurrence. These conditions are accounted for by the fact that prior to the introduction of the sigmoidoscope the diagnosis in the earlier stages of disease has been impossible, and at all times difficult and obscure.

I am convinced, from some special attention given to the subject of inflammation and ulceration of this portion of the alimentary tract, that the conditions exist much oftener than is generally supposed, and are often mistaken for rectal disease, intestinal catarrh or chronic dysentery.

Inflammation of the sigmoid flexure is preceded by a congestion of its mucous membrane, and if not relieved by treatment results in a condition of ulceration. The most frequent cause of these conditions is, in my opinion, a constipated condition of the bowel. The special office of the sigmoid flexure is to receive and hold the fecal mass between the acts of defecation. The peristaltic action of the large intestine is slow, thus allowing faeces to accumulate in the flexure, and at intervals the accumulated mass is carried into the rectum to be expelled. If the act of defecation does not take place the fecal mass is by a reversed peristalsis carried back into the flexure and retained. Its watery portion is absorbed, leaving a hardened and fermenting mass which acts as an irritant to the mucous membrane, causing congestion, which, as stated, is the precursor of an inflammatory condition. If the inflammatory process is long continued it culminates in ulceration.

The symptoms which I have noted of inflammation of the sigmoid flexure, are pain and sometimes tenderness over the region of the flexure, reflex pains in the bowels, stomach, bladder, uterus, ovaries, prostate gland, back and thighs, tympanitis, straining at stool, the passage of hardened fecal masses sometimes covered with mucus, and diarrhoeal, mucous and sometimes bloody stools.

When we have to deal with ulceration of the flexure we find the same complex of symptoms, many of them exaggerated, with the addition of severe pain, greater and more frequent tenesmus, and muco-purulent or purulent and bloody discharges.

In cases of inflammation of the flexure, the discharges sometimes consist of nothing but mucus in quantities varying from one to four ounces, while in ulceration, they may consist of muco-pus, and of faeces having a coffee-ground appearance. The general symptoms of severe or long continued disease of the flexure, are loss of flesh and spirits, dry and

sometimes sallow skin, coated tongue, indigestion and weakness.

General symptoms, however, are sometimes quite lacking, the patient presenting altogether a healthy appearance. In all cases of so-called chronic diarrhoea and chronic dysentery, and in all cases where there is a history of repeated mucous or muco-purulent discharges, the rectum should be thoroughly explored, and if this be found healthy, examination of the sigmoid flexure should be instituted.

Such examination with sigmoidoscope may be satisfactorily made by any one possessed of moderate skill and patience, provided it be conducted in the proper manner. The best sigmoidoscope is simply an oval, nickel-plated speculum, of sufficient length, carrying an electric light in the distal end, and fitted with an obturator, which is removed after the instrument is introduced. An instrument without the electric light may be used, but is less satisfactory. In this case light is reflected by a concave mirror.

For the practice of sigmoidoscopy, the patient is placed in the knee chest position, all tight clothing and bands about the waist having been removed. The sigmoidoscope is carefully introduced, well up to or beyond the narrowed junction of the rectum and the sigmoid, and the obturator removed. Atmospheric inflation of the viscus takes place, when a proper adjustment and manipulation of the instrument and the light will usually bring into satisfactory view the parts under examination.

A more complicated instrument with a glass cap or plug to close the proximal end and a bulb attachment for inflating the sigmoid has been devised. To my mind the simpler instrument above described is equally valuable for diagnostic purposes, and altogether more satisfactory.

With a little experience the conditions of congestion, inflammation and ulceration, and other conditions outside the scope of this paper are as readily and accurately diagnosed as are similar conditions in the vagina, throat or other parts of the body.

The sigmoidoscope is also of great value in adding to our knowledge of the anatomy and relations of the sigmoid colon, as observed in the living subject.

In cases where a sigmoidoscope is not at hand a systematic examination of the flexure is conducted as follows: First having emptied the gut by means of a saline and copious enemata, a large sized and heavy rectal tube, or a medium-sized Wales bougie, well lubricated, is passed four or five inches up the rectum, a few ounces of warm water are injected, and the tube then pushed onwards into the flexure. In case of disease located at this point, I have found either one or all of the following symptoms to be present: Pain or tenderness, or sometimes both, when the tip of the tube reached the flexure, impaction of faeces, and mucus or muco-pus and sometimes blood upon the tube on its withdrawal.

The treatment which has been successful in my hands consists in washing out the intestine with copious enemata of warm water, introduced by means of a bulb syringe through the rectal tube, and the local application to the flexure of iodoform suspended in pure olive oil, one part to one hundred injected through the same tube and allowed to remain. One ounce is injected at each treatment, with the patient in the recumbent position. This is done daily at first, and afterwards, as improvement is noted, at intervals of two or three days.

Ulceration of the flexure is treated in the same manner, the application being preceded during the early part of the treatment by the direct application through the sigmoidoscope by means of a pledget of absorbent cotton on an applicator of a 1 to 40 or a 1 to 50 solution of nitrate of silver or by the injection

of a solution of colorless hydrastis. Confinement in bed during the early part of the treatment is essential to the best success. The diet should be limited to simple and easily digested food, e. g. stale bread, milk, eggs cooked or raw, fresh beef juice, etc. The treatment of inflammation or ulceration of the sigmoid flexure by the internal administration of medicines is, in my experience, futile. The administration of intestinal antiseptics is of little, if any, avail, and the use of cathartics or of opiates contra-indicated.

I will report two cases:

Case 1.—Mrs. P———, age 37, consulted me in November, 1896. She had been operated on for piles one year before, and cured. She was thin and nervous. She stated that she was having four to eight loose, slimy and sometimes bloody movements daily, that she suffered pain in the stomach, bowels and back, and that frequently she had a peculiar sickening pain in the left inguinal region just before defecation. She also suffered considerably from flatus and at times from tenesmus. The tenesmus was especially troublesome in the morning both before and after the morning movement, which was followed in fifteen to thirty minutes by a discharge of an ounce or more of muco-pus. On examination I found the rectum normal. I then explored the sigmoid flexure in the manner described, and found that the presence of the tube at the flexure caused her considerable pain and a peculiar sickening sensation. On removing the tube, its tip was found covered with a slightly bloody and muco-purulent discharge.

Satisfied that I had a case of ulceration of the flexure, I proceeded to treat it on the lines already laid down. In two weeks she had made considerable improvement and from this time on no more blood was seen in the movements. In two weeks more her condition was radically changed, she having but two or three movements per day, the pain over the flexure was much lessened, and the reflex pains had left her. Her general condition was also much improved. Pus was now absent, but the movements, especially the morning one, showed some mucus. I allowed her to return home on condition that she would continue the iodoform and oil treatment. She gradually improved and in a few weeks was entirely well and so continued for two years. I have not heard from her since. At the time of treating this case I had never used the sigmoidoscope.

Case 2.—Mrs. M———, age 56, consulted me in September last for what she considered rectal trouble. She had pain in the left inguinal region and in the back, the latter pain being continuous and severe. She had eight or ten passages per day, diarrhoeal and slimy in character, alternating, she said, with constipation; at no time was the slimy condition of the passages absent. She was nervous and irritable, and slept poorly. A diagnosis of inflammation of the sigmoid flexure was made with the aid of the sigmoidoscope. Treatment, as already outlined for this condition, was instituted. Result, complete cure in eight weeks.

CONCLUSIONS.

Congestion of the sigmoid flexure, if untreated, ends in inflammation. Inflammation, if it becomes chronic and is not cured by treatment, ends in ulceration. Inflammation and ulceration of the sigmoid flexure are amenable to local treatment, but are not perceptibly affected by internal medicine.

Many obscure cases of intestinal disease may be diagnosticated and cured on the lines here laid down.

The sigmoidoscope is an addition of positive value to the armamentarium of the physician, substituting for conjecture, accuracy in diagnosis.

INTRACRANIAL PSAMMOSARCOMA WITHOUT PARALYSIS

By Walter D. Berry, M. D., Burlington, Vt. Late Clinical Director and Pathologist, State Hospital for the Insane, Waterbury, Vt., Professor of Mental Diseases, University of Vermont Medical College.

In the consideration of intracranial growths, we naturally look for grave and serious trouble in consequence of their presence within the

brain cavity. One very naturally supposes that any interference with the cortical neurons either from direct or indirect pressure causes a more or less profound set of symptoms. In other words we expect some interference with the stream of thought or certain defined or ill defined signs of motor paralysis. If we do not find such pathognomonic signs or "the classic symptoms of brain tumor" we are dumbfounded if at the post-mortem table we discover a large neoplasm which has undoubtedly occupied a large part of the space intended for the motor area and caused direct pressure upon the basal ganglia. Such, however, was true in the case I am about to present.

Intracranial tumors among the insane are not as common as one would naturally suppose them to be. In one hundred and twenty autopsies performed in the Vermont State Hospital during the last three years only one distinct intracranial neoplasm has been found. We are told that the brain is often damaged by new growths which arise in its substance or spring from the enclosing membranes or from the bones of the skull. However frequent this may be yet certain unique features of this individual case, together with its comparative statistical rarity, are my reasons for bringing the case to your attention.

There seems to be considerable difference of opinion, however, regarding the name and true nature of a psammoma, although most authorities regard them as belonging to the class known as sarcomata. For instance, one author says "angio-lithic sarcoma," another "acervuloma cerebri," and still another authority contends that it "represents no distinct species of tumor."

Senn says: "A psammoma is an endothelial outgrowth of the envelopes of the brain that are first described by Virchow, who included it with the sarcomata. *Bland Sutton* refers it to an epithelial matrix in the villous processes of the choroid plexus; but as it is found more frequently in localities where there are normally no epithelial cells, it is advisable to include it among the connective tissue type of tumors. The tumor is composed of onion-like cell-masses separated by a strona of connective tissue. The concentric bodies consist of endothelium-like cell-nests arranged around blood vessels, which in the course of time become infiltrated with calcareous salts. It was first believed that the dura mater was the favorite seat of psammoma, but more extended observations have shown that it occurs most frequently in the choroid plexus and in the ventricles. Progressive growth of the tumor is arrested by fatty degeneration of the tumor cells and by calcification. The tumors, which usually vary in size from a pea to that of a walnut, are often symmetrical, occupying the same location in both sides of the brain. In the lateral ventricles a tumor of fair size may not give rise to any symptoms; in other cases it has caused cerebral disturbances of different kinds and focal symptoms which pointed to the location of the tumor. If the tumor does not undergo calcification, its growth is progressive and it eventually destroys the life of the patient. The clinical history of all such cases is usually one of slow progressive paralysis and death. Among the retrograde metamorphoses in sarcomata, calcification only occurs in psammoma."

Ziegler says: "A further peculiarity of sarcomatous as well as fibromatous and myxomatous tumors is the possible formation within the tumor, of circumscribed areas of calcification, which resemble the sand-like particles found in the brain; and from this circumstance some authorities have felt warranted in calling such tumors psammomata (acervulomata, sand tumors). They are found chiefly though rarely in the membranes of the central nervous system."

Hamilton, a none the less eminent authority, says: "A psammoma should not be placed

among the sarcomata, as undoubtedly it does not belong to them. For want of a better means of classifying it, the author has included it among the sarcoma-like tumors. It is a tumor of varying size found growing from the choroid plexus, the ventricles of the brain, the arachnoid and dura or pia mater, whose special characteristic is that it contains sand-like concretions. The tumor is made up of a series of endothelium-like cell-nests arranged around blood vessels, which in course of time become infiltrated with a calcareous salt. It is called an 'Angio-lithic sarcoma' by Cornhill and Ranvier on account of its connection with the blood vessels."

Stengel, an excellent authority, says of the term psammoma: "This represents no distinct species of tumor growth, but rather a peculiarity of different kinds. The name refers to the presence of calcareous matter like that of brain-sand (acervulus cerebri) and psammoma has sometimes been called *acervuloma*. The calcareous matter occurs in the form of rounded masses or concentrically arranged whorls. The tumor-elements themselves may be fibromatous or circinomatous. In most instances it is angiofibronata or angiosarcomata that presents these appearances. Psammomata are met with in the membranes of the brain, the choroid plexus and the pineal gland." In connection with diseases of the reproductive organs he says of ovarian papillary cystomata: "Calcareous bodies arranged in a concentric fashion (psammoma-bodies) are frequently met with in the stroma as well as in the epithelium."

Delafield and *Prudden* says: "Some forms of psammoma or 'brain-sand' found chiefly in the dura mater are fibro-sarcomata which have undergone calcification, the lime being deposited in lamellated masses of various shapes within them."

Without further citations I will proceed with the history of the patient:

Case 16.—M. M., a woman 74 years of age; mother died aged 73 of "softening of the brain," father died aged 77 years of "heart disease." One sister committed suicide, another sister died of consumption, and still another sister died of cancer of the breast. As a child the patient was unusually bright and "of a cheerful disposition, though regarded by some as rather delicate"—had typhoid fever at 21 years of age, but made a good recovery, suffered considerably from "female troubles" all her life, but this complaint never regarded as a serious one.

When 50 years of age is said to have had "a fall down stairs, striking on her head," but there were no sequelae noted, neither was a physician summoned. No history of fracture or period of unconsciousness followed as far as remembered. At the age of 55 she began to develop severe attacks of sick headache and it was first noted that memory was beginning to fail; at the age of 66 she had a severe attack of la grippe and "was mentally unbalanced for some time, but finally seemed to recover her previous mental balance, but three years afterward was again taken with la grippe and after recovery from her physical illness did not seem to be balanced mentally and steadily declined after that. Her domestic life was always of the pleasantest until about ten years prior to her mental break down, when she suffered severe financial reverses and this was given as an assigned cause for her insanity. She never had any children and never had any miscarriages, emphatic denial of venereal infection.

Admitted at the State Hospital at Waterbury, Dec. 11, 1899, on the following physician's certificate: "For the last two years she has wandered around the streets in an aimless manner, calling at houses without purpose, walking in the middle of the road and asking strangers questions. She needs the constant attention of an attendant; has to be locked in

her room nights and rebels against control. She is destructive and has delusions which frighten her and make her more uncontrollable."

On admission to wards was very restless, wandering about in an aimless manner, trying the doors and windows but not giving any reason for so doing; was planlessly resistive and talked a great deal about persons and places she had formerly known but in a garrulous and indifferent manner. Gave evidence of hallucinations of sight and hearing, talked of seeing animals and burglars in her room at night and often showed effect of fear; said she carried on conversation with persons who had long since been dead and showed considerable pressure of activity. Her memory was very poor for remote as well as for recent events, and she was only partially oriented.

Continued in much the same state as described until the early part of January, 1900, when she was taken with a slight cough and coryza, which condition in about a week developed into left lobular pneumonia; expectorated freely but dyspnoea continued quite persistently; was thought to have recovered from this and went about in a rather weakened condition until April 11th, when she was again taken with a severe cold, "this developing later into right lobar pneumonia and died April 14th."

She had been so restless that a more extended examination of her physical status was not made, however there did not seem to be any paralysis of any part of the body at any time. An autopsy was performed six hours and thirty minutes after death and the notes are as follows:

Aged and emaciated, fairly well nourished, female body, rigor mortis slight, marked post-mortem lividities were present over dependent portions, both feet were in full extension and there was a slight tendency to talipes equinovarus on the left side; no evidence of decubitus present; arcus senilis distinct; no apparent facial asymmetry, but considerable amount of cyanosis was present; ears being bluish discolored and the external jugular vein on the right was much distended and unusually distinct (i. e. running from its bifurcation in the supra-clavicular region upward to the inferior maxillary space, this condition was probably a phenomena due to dyspnoea), the abdomen was much distended and full of gas; the peritoneum was quite firmly adherent to the intestines; the right lobe of the liver lay at least a full inch below the costal margin and was firmly adherent to the surrounding tissues; the diaphragm was also the seat of considerable thickened and had a dime-sized milk spot upon middle of anterior surface; the vessels of the visceral layer of the pericardium were tortous and generally whitened; the percardial sac contained about 10 c. c. of clear straw-colored fluid.

Heart.—Weight 410 grammes. The right side was entirely filled with a large well organized clot, with the chordae tendinae throughout entwined by it; there were several fairly well organized clots within the smaller pulmonary vessels; valves were of normal width but had the ordinary amount of atheromatous deposits thereon.

Left Lung.—Weight 665 grammes.

Right Lung.—Weight 520 grammes. On the left side, the lower lobe was almost entirely solidified, with the exception of a small area near the transverse fissure, which appeared oedematous; the apex showed evidence of old scars. The right lung was adherent to the chest wall over its entire surface but particularly firm over the liver; on section showed profuse amount of oedema and congestion, but no areas of consolidation.

Liver.—Weight 1500 grammes. Was dissected out without much difficulty, being adherent to diaphragm; the fissure of the gall

bladder showed a marked increase in the thickness of the capsule and was traversed by many fibrous strands; a corset sulcus was present in the middle of the right lobe; supernumery left lobe; the whole organ on sectioning appeared slightly grayish in color and did not show any microscopic increase of connective tissue.

Spleen.—Weight 100 grammes. Pulpa was unusually soft and the trabeculae were indistinct. *Pancreas* was normal in appearance.

Left Kidney.—Weight 120 grammes.

Right Kidney.—Weight 110 grammes. The ureter of the right kidney was distended and full of urine, this condition being evidently due to smallness of its caliber near the bladder exit: the pyramids were distinct in both and the capsules were adherent and thickened; the external surfaces of both contained numerous rosettes. *Uterus* and *adnexa* sclerotic. *Ovaries* were adherent to pelvic wall and practically obliterated. *Appendix veriformis* adherent to surrounding intestines, but having no evidence of pus or recent inflammatory products.

Calvarium.—Weight 335 grammes. Symmetrical externally; sutures well preserved; moderate amount of diploe; sulci of blood vessels rather deep and jagged; about four centimeters to the right of the junction of the saggital and coronal sutures there appeared a distinctly elevated vertical ridge of bone, the extremities of which were sharply pointed and extended about three centimeters in length parallel with the longitudinal sinus into the frontal bone. The dura mater was firmly adherent to the calvarium throughout its entire extent, but was particularly adherent over the frontal area and site of the depression of bone. This upon further investigation was found to be firmly joined to an apple-sized tumor mass extending into the right hemisphere, but apparently not intimately associated with the cortex. (See photos of calvarium and brain, showing the association and relation of the above described parts.) In tracing out the dura mater, the tumor was seen to be springing from this membrane and microscopically the growth appeared of a grayish red color and was of a firm consistency. The tumor at first sight showed only about a half dollar-sized area, so deeply was it buried within the substance of the cerebrum. Upon further examination the tumor mass was observed to arise distinctly from the dura mater, but occupied an area bounded externally by the second frontal convolution, internally by the median raphe with the paracentral convolution or lobule crowded down beneath upon the roof of the corpus collosum; posteriorily by second frontal convolution. The median portion of the tumor presented a deep groove wherein rested the vertical ridge of bone in the calvarium, and from this point in the dura radiating fibrous bands were readily seen stretching outward to all parts of the growth. A complete section of the brain at this point showed the tumor mass pressin lownward directly upon the internal capsu deflecting the septum pellucidum toward left and bearing down the corpus collosum on that side; the cinguli gyrus and the superior frontal gyrus being crowded down and apparently atrophied. The caudate nucleus seemed to be the part which had received the most direct pressure, but this, although being somewhat out of place, did not appear to be in any way directly altered in structure.

There were no areas of softening present and all of the convolutions seemed well formed. There were no granulations of the fourth ventricle present. Save considerable athroma of the basilars, the brain otherwise presented few features which would be worthy of notice.

Sections were taken of the tumor, together with cortex from the paracentral and second frontal convolutions, cerebellum and cornu

ammonis from both sides of the brain; the cord, hypophysis and sections of the abdominal and thoraxic organs were also taken and preserved in the usual manner. Nissl and Weigart-Pal staining methods were used for examination of the nervous system and Unna's method was used for staining sections of the tumor and internal organs.

Microscopical Examination.—Tumor: The growth when sectioned seemed very difficult to cut and the edge of the knife grated some while a section was being taken. The most striking feature concerning the tumor appeared to be its gritty consistency and under the two-thirds and one-sixth objectives there appeared a large number of concentrically arranged whorls or rings of hyaline-like structure, with which various areas of the tissue was literally crowded. These were hardly perceptible to the naked eye, but upon the very closest inspection these spherules appeared elongated but retained the same hyaline, concentrically arranged whorls with a capsule of considerable thickness. Other fields were found where scarcely nothing appeared under the microscope save these particular bodies which it seems are so distinctive of psammomata. Many of these spherules had within their centers a distinctly irregular point of calcareous substance; these of course upon sectioning caused havoc with the usually sharp microtome knife and in most instances caused a tearing of the specimen.

Some of the whorls stained well with Nissl and Unna while others did not seem to take the stain at all. As to just what chemical substance these hyaline spherules represent, has not as yet been determined, but it is very evident that the central point is represented by some calcium salt, due to degenerative changes.

A large portion of the growth, however, consisted of small spindle cells with elongated oval nuclei, with very little intercellular substance separating them and in other areas there appeared a decidedly fibrillated appearance, and in still other fields there were beautifully curved bands running about the hyaline spherules.

There was hardly any evidence of blood vessels in the growth and very little connective tissue present, as there appeared to be a gradual transition from connective tissue in the dura mater to the spindle-celled structure of the tumor, together with its decidedly psammamatous characteristics.

In general the cells of the liver were somewhat atrophied, but the viscus was not specifically cirrhotic. The sections made from the other organs showed few cell changes worthy of note. Weigert-Pal sections from the medulla and upper portion of the cervical cord showed no tract degenerations.

In conclusion, then, the interesting and peculiar features of this case are: First, that no apparent paralysis or interference with coordination and locomotion occurred, although there was present a large growth directly imbedded in the convolutions and thereby causing considerable pressure; 2d, the malignant growth was presumably of traumatic origin, springing from the dura mater but principally caused by the vertical ridge of bone pressing downward upon the meninges; third, that no evidence existed externally of a depressed fracture of the skull.

In connection with the preparation of the necessary tissues for microscopic study, I wish to acknowledge the help of my assistant, Mr. Herman D. Bone, and in reference to the photo-micrographs, I wish to acknowledge the assistance of my friend, Dr. M. J. Wiltse, of the State Laboratory of Hygiene, who has made it possible for me to illustrate this contribution to the literature on the subject.

SOME INTERESTING CASES

Clinical Society of the New York Polyclinic Medical School.—Stated Meeting held November 7, 1904, the President, Dr. Daniel S. Dougherty, in the chair.

SPECIMEN OF GANGRENOUS APPENDIX.

Dr. J. A. Robertson showed an appendix which had been removed from a patient the previous week. During the afternoon he had severe gastric pains and vomiting. At ten o'clock the same evening a diagnosis of appendicitis was made, based on the tenderness at McBurney's point at the ventrix. Slight intestinal obstruction was also suspected, as the vomiting persisted, and toward morning became fecal in character. The temperature was 103.8, followed by collapse the next morning, and during this collapse the operation was performed, the appendix being removed about 9 A. M. Examination of the appendix revealed the fact that it was gangrenous near the tip, and midway there was a stricture. Opposite the point of stricture were two gangrenous spots, just ready to break through. This specimen demonstrated the rapid development of the disease, and emphasized the necessity for early operation. The speaker had seen seven consecutive cases of gangrenous appendicitis within the past two years, and had operated on them, with but one fatal result, and in that case he had hesitated more than twenty-four hours after the appearance of symptoms before operation. In his opinion, operation should be performed during the first twenty-four hours, or not at all.

Dr. A. Lyle opened the discussion. He said that the point he thought of greatest importance was the sudden drop of temperature. Gangrenous appendicitis can almost always be diagnosed by this sudden drop of temperature. Many physicians might interpret this as a sign that the patient was on the road to convalescence and postpone operation, and the case would probably result fatally. In the suppurative type of appendicitis, the temperature continues to rise slowly and does not drop as suddenly.

Dr. B. H. Wells said that he had seen this patient in consultation with Dr. Robertson, and an important feature not mentioned by the first speaker was the sudden cessation of pain. The temperature in appendicitis cases he thought a very irregular guide, as is the pain, or, in fact, any single symptom. The patient may have normal or subnormal temperature and normal or very slow pulse, but if the pain is severe and then suddenly stops, it is well to proceed carefully. The speaker had examined many cases under these circumstances, and often found extensive gangrenous appendix and intestines.

Dr. M. Packard said that in his opinion, from the standpoint of diagnosis it was immaterial how the temperature stood, but the pulse was an important factor. If the patient had a rapid pulse, with a normal or subnormal temperature, and a pulse of 100 and a temperature of 98.6 or even 98, operation should be performed. Another point mentioned by Mannenberg and substantiated by Nothnagel as important in the differential diagnosis of appendicitis is that of the second pulmonary sound of the heart, which is usually accentuated in appendicitis. Mannenberg reports this symptom in 170 out of 200 cases of appendicitis which he examined.

Dr. Robertson, in closing the discussion, said that at the operation it was found that the complication which had been suspected was found to be present. About 18 inches from the appendix the small intestine was strangulated and twisted, and the mesentery was twisted throughout, and for a few minutes we debated whether it would be wise to resect this

portion of the intestine, but Dr. Wells suggested that it be closed.

SPECIMENS OF TUBAL PREGNANCY.

Dr. L. J. Ladinski reported three cases of tubal pregnancy occurring in his practice during an interval of 12 days, and showed the specimens removed from his patients. The first patient had been bleeding from the uterus for four or five days, but the discharge had disappeared the day before the speaker saw the patient. Temperature was normal, pulse 110. Examination revealed a somewhat enlarged uterus, a characteristically enlarged tube, tender and sensitive to the touch. No bleeding from the uterus, however. A diagnosis of tubal pregnancy was made and operation advised. The following day the uterus was curetted and abdomen opened. There was free blood in the peritoneal cavity. The enlarged tube, with the fimbriated extremity very much dilated, and presenting a large blood clot from which hemorrhage took place, was removed. This was a case, therefore, of tubal abortion. The tube might have been saved, but as the attachment of the sac was close to the uterine end, it was not deemed wise to do it. The patient left the hospital nineteen days after operation.

The second patient was 23 years old. On the day previous to her admission to the hospital she had been taken with a sudden sharp, stabbing pain in the lower abdomen on the right side. With the onset of the attack she had a hemorrhage from the uterus. It was not time for her menstrual period, as she claimed to have menstruated only three weeks before. She felt dizzy, cold and extremely weak. Patient denied any possibility of pregnancy. Operation was performed under ether, the uterus being curetted. Upon incising into the peritoneal cavity, free blood welled out. The right tube was found very much elongated, and the gravid sac with the amniotic sac unruptured was found attached to the fimbriated extremity and external to it, and was removed. The left ovary presented a cyst the size of a hen's egg, to which the gravid sac and distal end of the right tube had evidently been attached, and was separated on manipulation before opening the peritoneal cavity. This ovary was removed. The distal end of the tube, which was found closed, was opened and everted. The appendix was removed and the wound closed without drainage. The patient made a good recovery.

The third patient complained of a sudden sharp onset of pain, with bleeding from the uterus which lasted for about twenty days. Examination revealed a tense, tender, elastic mass bulging into the left lateral fornix of the vagina. Uterus slightly to the right of the median line. Patient absolutely denies any possibility of pregnancy. A diagnosis of tubal pregnancy was made; the uterus was curetted and the abdomen opened. Free blood was found upon opening the peritoneal cavity. The left tube was much distended with clots and ruptured. The left tube was removed, including the left ovary, and the abdominal wound was closed in four layers, without drainage. The patient made an excellent convalescence.

Dr. Wells opened the discussion of these cases. He said that in extrauterine pregnancy hemorrhage is usually attributed to rupture, while in reality it often occurs previous to rupture, and is not necessarily accompanied by this latter symptom. The ovum is expanded inside the tube, and the villi grow into the walls of the tube, and after a time grow straight through. The blood pressure causes the tube to sweat blood from the little ends of the villi. The same process makes the wall of the tube very weak, and the ovum is growing inside, and when it comes across a naturally large blood vessel, hemorrhage is apt to follow.

A CASE FOR DIAGNOSIS.

Dr. M. Packard reported the case of a man who presented himself at the clinic about four weeks ago, with the following history: Family history and previous history good. His present history began about nine months ago, with gradual difficulty in swallowing. The dysphagia became so extreme that it was impossible to take solid food of any kind. On several occasions he vomited blood, which was always of a bright red and never of a chocolate nature. He lost in weight as much as 30 pounds. Naturally, with this history, we suspected a neoplasm of the oesophagus or cardiac end of the stomach. We passed an oesophageal sound, which was not restricted at any portion of the oesophagus, but on removal brought up about 3 drams of pure blood. The stomach was normal in size, but on account of the bleeding a test examination was valueless. Liver and abdomen were normal. The heart sounds were all feeble, but there was a relative accentuation of the second aortic sound. There was no burring or thrill. His blood examination showed 5,200,000 red, 100% haemoglobin, 7,600 whites, showing the blood absolutely normal, and ruling out with a positive degree of certainty malignancy, and especially of the stomach. His arteries were athermaetic, and with this history the diagnosis pointed either to varicose veins of the oesophagus or ulceration of the oseophagus, due to arterio-sclerosis.

Dr. Burtenshaw stated that Dr. Packard, in connection with the blood examination, said that the normal condition of the blood proved conclusively that there was no carcinoma. In the speaker's opinion, the blood examination alone was not conclusive proof that no malignancy or inflammatory condition was to be anticipated.

Dr. Packard, in closing the discussion, said that he agreed with the last speaker that a normal blood examination alone was not conclusive proof of the absence of malignancy, but when a patient's blood gave a red blood cell count of over five million blood cells, and 100% haemoglobin, it is safe to assume that carcinoma is not present. In carcinoma there is usually a secondary anemia, and the haemoglobin of the red blood cells becomes polluted.

EPITHELIOMA OF VULVA.

Dr. Brooks H. Wells reported two cases of epithelioma which had come under his observation, and presented drawings and photographs to illustrate them. He said that primary epithelioma of the vulva is rare, occurring in only about three per cent. of the cases of cancer of the genital tract. Not much is known definitely of the predisposing causes. Long continued irritation undoubtedly increases the chance of its appearance. Cancer may invade any portion of the skin of the vulva and spread outward in the direction of the lymph streams. Histologically it usually gives the picture of a squamous celled epithelioma, except when it invades the vulvovaginal gland, when we find the cylindrical celled or adeno-carcinoma.

The treatment of cancer of the vulva should be early and radical excision, together with excision of the superficial inguinal glands on both sides. Prognosis as to permanence of relief is bad, as after a variable time the disease nearly always returns. In inoperable cases, morphia, given freely to quiet pain, scrupulous cleanliness with alcohol dressings to minimize odor, and at times partial operations to remove sloughy or haemorrhagic portions of the new growth, with such other measures as may be demanded in the particular case to secure the least discomfort, should be resorted to.

The first case was a patient, aged 40, multipara, referred to the speaker for diagnosis.

She was stout, florid and well, except for a peculiar spot which had been present for several months on the left side of the vulva, which persistently itched, and had been pronounced a chancre by several physicians. Inspection showed on the upper part of the left labia majus an area of somewhat thickened skin, sprinkled with fine whitish scales. Within this area were two insensitive, round, slightly elevated, firm, flat masses, moveable with the skin upon the underlying tissues, having rounded whitish edges, smooth, slightly moist, glistening surfaces of a copper red color, and which in all particulars resembled chancre. Careful palpation showed slight hard, painless induration of the inguinal glands on both sides. Syphilis being apparently excluded, owing to the high moral character of the patient and her husband and the absence of all history, a diagnosis of epithelioma was made and excision advised. This was done a few days later, by an incision which went wide of the diseased area, and deeply removing the whole of the left side of the vulva. The patient and her physician would not consent to the removal of the inguinal glands. The wound healed per primam. The specimen was taken to a well-known pathologist for examination. He looked at it and said a fine chancre had been removed. Examination of the hardened tissues, however, proved it to be a typical epithelioma.

The patient was lost sight of for two years, at the end of which time she was seen with a mass of carcinoma in the left groin, and so weak that it was evident that she had but a few days to live.

The second patient came to the clinic, complaining that for eight months her womb had come down. Family history showed no constitutional taint of tuberculosis, rheumatism or cancer. She had no living children, but four miscarriages from traumatic causes between the third and sixth months. Examination revealed her to be in a normal condition above the pelvis, the uterus small and free and very easily moveable. The vagina was large, the pelvic floor much relaxed, and when the woman stood up or strained, there was complete prolapses of vagina and uterus. The skin for an inch out from the mucocutaneous junction at the lower half of the vulvular entrance was dry, somewhat thickened, slightly reddened and covered with abundant whitish scales, the condition resembling a chronic scaly eczema, and being accompanied by severe and persistent itching, which had been present for about fourteen years. There was no sugar or albumen present in the urine, and diabetes was excluded as a cause for the skin condition. Operation was strongly advised, but refused by the patient, who, as a temporary palliative, was shown how to support the uterus by a firm cotton cylinder, placed crosswise in the vagina and was given a ½% salicylated Lassar's paste to apply to the diseased skin. About two and a half years later she again presented herself, complaining of a gradual loss of health and strength, itching of the vulva with occasional periods of pain, and for three months an offensive discharge like bloody water. Examination showed a flattened papillary mass projecting ¼ inch above the adjacent skin, and extending outwardly from a little within the mucocutaneous junction of the lower third of the vulva on the right side. On the opposite labium were a number of smaller similar papillary masses, apparently the result of contact inoculation. There was no apparent enlargement of the inguinal glands on either side. Patient entered the hospital and the superficial inguinal glands on either side were removed, together with the new growth, the greater part of the skin, and the underlying fatty tissues and connective tissues of the vulva and of the lower vaginal mucosa. The wounds were closed with silkworm gut and healed without infec-

tion, except at the lower vulvular portion, where some suppuration and granulation occurred. The specimen was sent to Dr. Jeffries for examination, and he pronounced it typical carcinoma.

Dr. J. H. Burtenshaw asked whether the bloody discharge in the second case was only from the growth or the skin covering it. He also asked whether there was any involvement whatever of the mucous membrane or the vaginal walls, and also whether the possible effects of the application of the X-rays, the roentgen or the ultra-violet rays had been considered. He thought that in cases where the use of the knife was impracticable, especially, the rays should be at least tried.

Dr. L. J. Ladinski said he had operated on a patient for epithelioma of the vulva, and had removed the inguinal glands, which were only slightly enlarged, the operation having been performed early in the course of the disease. Recurrence in the pelvic glands had followed very quickly, and the patient's condition was much worse than at the time of the original attack. The speaker would hesitate to operate again under the same circumstances, and would first try the various forms of radiation.

Dr. Milton Franklin said that in case of epithelioma, as in all other cases of malignant growths, he would advise against using any of the radiations where the knife could be used. In cases of epithelioma of the face, where a good cosmetic effect is desired, radiation may be preferable to the use of the knife. Epithelioma of the lower lip had never been cured by the rays, as far as the speaker could ascertain, and epithelioma of the pelvis seemed to be in the same class. After operation, however, the field from which the carcinoma has been removed should be X-rayed, as experience has demonstrated the value of this treatment.

The paper of the evening was read by Dr. Joseph Brown Cooke, and was entitled:

THE OBSTETRICS OF THE FUTURE.

Dr. Cooke said he thought that in another quarter of a century the general method of procedure in obstetrics would be the routine induction of labor, at or near term, instead of the waiting policy of the present time, by which pregnancy is permitted to continue until labor is spontaneously ushered in. He said that with the method at present in vogue, when the labor was normal, chloroform used to the obstetrical degree during the last hour or so, and the woman rallied promptly and enjoyed a normal puerperum, this was all that could be desired. It often happens, after labor begins, that the woman's suffering becomes so great, in spite of apparent uncomplicated delay in delivery, that the physician is obliged to interfere, and under complete anesthesia discovers for the first time a previously unrecognized persistent posterior occiput, a face case, a condition of marked disproportion between the presenting part and the pelvis, or even a breech appearing at the superior straight. The entirely unnecessary delay to which the woman has been subjected only intensifies her liability to shock, to sepsis and to hemorrhage after the operation. The child, which might have been saved if interference had been inaugurated in time, may be lost through asphyxia, manipulation, forceps, or even require mutilation before delivery can be accomplished. When such emergencies arise, there are, as a rule, no adequate preparations for the work to be done. The remedy which the speaker offered for this state of affairs was as follows:

"Every obstetric case should be examined methodically during the last month of pregnancy, preferably at weekly intervals, and after due consideration a definite day and hour for the onset of the labor should be set. This should depend upon the position and presentation of the foetus, the character of the pelvis

and the relation which it bears in point of size and shape to the presenting part; and every effort should be made to correct any existing mal-position by external version or some similar means. With a slightly contracted pelvis, measured more accurately by the relation of the foetal head to the brim than with the pelvimeter, a somewhat early induction of labor would afford far better chances to both mother and child than a version or protracted forceps operation performed two or three weeks later. The possible danger to the child by reason of its slight prematurity would be more than offset by its easy birth and escape from the perils of operation. In cases where the position and presentation are normal, the patient should be allowed to go on to term, and labor then induced. The method of induction depends on whether the patient is a primigravida or a multigravida. In the first instance it is usually necessary to insert a bougie after the Krause method and leave it until pains are established and the cervix softened and dilated, when it should be removed. This should be done at night, the patient having been first given a full bath and a large dose of caster oil, to be followed by an enema in the morning. The physician should return the next morning, remove the bougie, and if pains are not well established, stimulate contraction by digital dilation of the cervix. In the case of a multigravida, the use of the bougie is seldom indicated, as a large dose of caster oil at night, followed by an enema, are often enough to bring on labor in the morning. If not, vigorous dilation of the soft and patent cervix will, in nineteen cases out of twenty, cause effective pains within a short time. As soon as labor is well established, its further progress is left to Nature. Chloroform to the second degree should be exhibited during the second stage, and instruments used if necessary, under surgical anesthesia, but only after complete dilation. The duration of labor in the primiparas, dating from the onset of pains, after introduction of the bougie, has averaged under five hours, and in multiparas under two hours."

Dr. J. H. Burtenshaw said that were labor induced and anything to go wrong, the family would throw all responsibility on the physician. Also, he did not see how the term of labor was so successfully shortened at the end of a full term pregnancy in either a primipara or a multipara.

Dr. Wells said that he had treated several patients who had been delivered by the method described by Dr. Cooke, and they had suffered a greater percentage of ill results following parturition than the women whose labors had taken the normal course. He also said that if only the external os were to be dilated, he much preferred to do it with the gloved hand, rather than with the bougie.

Dr. Ladinski said that he recalled several cases in which it had been necessary to induce labor, in which this procedure had been followed some time later by subinvolution and hemorrhage. While a little time had been saved for the physician by Dr. Cooke's method, he doubted whether the patients had been saved much time and discomfort.

Dr. Cooke closed the discussion, saying that he thought the positive statement that labor would be induced at a given time had a good effect on the patient mentally, and the uncertainty which she was saved left her general condition better fitted for the ordeal which she had to face. He though the postpartum complications to which Dr. Wells referred were the result of inexperience and imperfect technique on the part of the operator rather than of the method itself.

THE BOOKS OF THE YEAR.

Following will be found a list of the important medical works published during 1904. This list is in no wise complete and it is not

intended to give the name of *every* medical book issued throughout the year. Its principal object is rather to present a list of those books which every practitioner can add to his library with advantage. We trust that it will prove serviceable to our readers and supply them with data which will enable them to note the recent important works on medicine:

ANATOMY.

Essentials of Anatomy. 7th Ed. Nancrede. Published by Saunders.

Laboratory Manual of Human Anatomy. Barker. Published by Lippincott. Price $5.00.

BACTERIOLOGY.

Bacteriology and the Public Health. George Newman. $5.00. Blakiston.

Clinical Diagnostic Bacteriology. Including Serum Diagnosis and Cytodiagnosis. Alfred C. Coles. $2.75. Blakiston.

Essentials of Bacteriology. 5th Ed. Ball. Saunders.

CHEMISTRY.

Clinical Urinology. Croftan. $2.50. Wood.

Examination of the Urine. Saxe. $1.50. Saunders.

DIAGNOSIS.

Medical Diagnosis. 5th Ed. Musser. $6.00. Lea Bros.

Clinical Diagnosis. Boston. $4.00. Saunders.

Clinical Diagnosis. 5th. Ed. Simon. $4.00. Lea Bros.

Surgical Diagnosis. Berry. $2.00. Blakiston.

VENEREAL DISEASES.

Social Diseases and Marriage. Morrow. $3.00. Lea Bros.

Genito-Urinary Diseases. Taylor. $5.00. Lea Bros.

HYGIENE.

Personal Hygiene. Pyle. Saunders.

Examination of Water and Water Supplies. Thresh. $4.00. Blakiston.

DIETETICS.

Diet in Health and Disease. Friendenald & Ruhrah. Saunders.

Practical Dietetics. Benedict. $1.50. Engelpard.

THERAPEUTICS.

Roentgen Ray Diagnosis and Therapy. Beck. $4.00. Appleton.

Radiotherapy. Allen. $4.50. Lea Bros.

Alkaloidal Therapeutics. Abbot & Waugh. $3.50. Clinic Pub. Co.

An excellent book for the general practitioner, which gives the essentials of alkalometry.

Materia Medica. Thatcher & Sollman. $2.00. Saunders.

Practical Therapeutics. Hare. $4.00. Lea Bros.

LEGAL MEDICINE.

Text Book of Legal Medicine. Peterson & Haines. $5.00. Saunders.

Epitome of Toxicology. Wright. $1.00. Lea Bros.

NERVOUS AND MENTAL DISEASES.

Epilepsy. Spratling. $4.00. Saunders.

Epitome of Nervous and Mental Diseases. Nagel. $1.00. Lea Bros.

Practical Treatise on Nervous Diseases. Pearce. $6.00. Appleton.

Mental Diseases. Clouston. $4.50. Lea Bros.

"The Blues." Abrams. $1.50. Treat.

A very interesting little book.

OBSTETRICS AND GYNECOLOGY.

Atlas of Operative Gynecology. Schaffer. $3.00. Saunders.

One of the famous hand-atlases which have become so popular. This particular one is one of the best of a splendid series. Should be in every library.

Obstetrics for Nurses. Lee. $2.50. Saunders.

Obstetrics. Davis. 2nd Ed. $5.25. Lea Bros.

Gynecology. Dudley. 4th Ed. $5.00. Lea Bros.

EYE, EAR, NOSE AND THROAT.

Diseases of the Eye. Fox. $4.00. Appleton.

Modern Ophthalmology. Ball. $7.00. Davis.

Ophthalmology. Juler. $5.25. Lea Bros.

Nose and Throat. Kyle. $5.00. Saunders.

PATHOLOGY.

Atlas of General Pathology. Durck. $5.00. Saunders.

Manual of Pathology. Martin. $4.00. Blakiston.

Textbook of Pathology. McFarland. $5.00. Saunders.

Pathological Technique. Mallory & Wright. Saunders.

PHYSIOLOGY.

Blood Pressure. Bishop. $1.00. Treat.

Clinical Study of Blood Pressure. Janeway. $3.00. Appleton.

Textbook of Physiology. Brubaker. $4.00. Blakiston.

Textbook of Physiology. Ott. $3.00. Davis.

PRACTICE OF MEDICINE.

Diseases of the Intestines and Peritoneum. Nothnagel. $5.00. Saunders.

One of Nothnagel's volumes. A modern work that will be found useful and interesting.

Diseases of the Liver, Gall Bladder and Bile Ducts. Rolleston. $6.00. Saunders.

Diseases of Stomach and Intestines. Reed. $5.00. Treat.

Tuberculosis; Acute, General and Miliary. Cornet. $5.00. Saunders.

A splendid work on a highly important subject. It is one of the series in Nothnagel's Practice and will be found one of the leading books of the year. Thoroughly up-to-date and should be in every well equipped library.

Laboratory studies in Tropical Medicine. Daniels. $4.00. Blakiston.

SURGERY.

Gall Stones and Their Treatment. Moynihan. $4.00. Saunders.

Handbook of Surgery. Griffith. $2.00. Saunders.

Surgical Anatomy of Head and Neck. Deaver. $12.00. Blakiston.

Surgical Treatment of Bright's Disease. Edebohls. New York City.

System of Surgery. V. Bergman. $6.00 per vol. Lea.

Operative Surgery. 2nd Ed. Treves. $6.50. Lea.

American Year Book of Medicine and Surgery. Gould. Saunders.

Undoubtedly the best of the annual publications of medical progress. Essential to every modern library.

Operative Surgery. 2nd Ed. Bickham. Saunders.

NEWS, NOTES AND ANNOUNCEMENTS.

THE VERMONT STATE TUBERCULOSIS COMMISSION.—On Nov. 30, 1904, Governor Bell pursuant with legislative act appointed the following gentlemen as the State Tuberculosis Commission: Dr. Don D. Grout, Waterbury; Dr. W. N. Bryant, Ludlow; Hon. Henry Ballard, Burlington; Dr. L. W. Hubbard, Lyndon, and Dr. E. R. Campbell, Bellows Falls.

Much surprise was felt at Governor Bell's failure to reappoint Dr. H. E. Lewis of Burlington as a member of the board. Dr. Lewis inaugurated the tuberculosis crusade in Vermont, instigated the law creating the Tuberculosis Commission, and as secretary of the commission during the past two years has been active in the work of the commission. He has given a great deal of valuable time to the study of tuberculosis and its local aspects, and if work and experience counted for anything he should have been reappointed.

Governor Bell gave as his reasons for not reappointing Dr. Lewis, first, that he did not wish to appoint two men from Burlington; and second, that rumors had reached his ears that Dr. Lewis owned real estate in Grand Isle County that he contemplated selling to the State! ! That the governor did not avail himself of the ample means within his reach to learn the untruth of these rumors, does not reflect to his credit as a fair-minded man. It hardly seems possible, moreover, that these were the real reasons, and in the light of subsequent events there are very substantial grounds for believing that Governor Bell was playing politics in a small way. Dr. Lewis could be of little or no use politically, and his residence was on the wrong side of the mountain for his own good.

It is a lamentable fact that politics should have entered into the appointment of the Tuberculosis Commission. The work of such a commission is for all people, irrespective of color, creed or politics, and only the best-equipped and strongest men should be entrusted with the work. Dr. Grout, Dr. Bryant and Mr. Ballard, members of the old commission, are just such men. They thoroughly understand the work and are not only capable speakers, but they know what to talk about. They have studied the question in all its aspects and can be relied upon to conduct a campaign throughout the State that will mean much to the people. In regard to the new members, Dr. Campbell and Dr. Darling (for Dr. Hubbard after receiving the appointment as a political sop has resigned), nothing can be

said at this time. Both, however, are good men, of good character and repute, but neither have been identified with the study or investigation of tuberculosis and consequently their usefulness will not be apparent for some time. Later on they will unquestionably be of material aid in the campaign to be conducted.

The commission has gone about the work with vigor and intelligence, and every support and good will should be tendered them in the noble efforts they are putting forth in behalf of the people of Vermont. Education is the thing, and the Vermont State Tuberculosis Commission contemplates the holding of many public meetings throughout the State for this purpose. God speed the work and the men engaged in it.

Burlington and Chittenden County Clinical Society.—The regular meeting will be held at 162 College street, Thursday, December 29, 1904, at 8.30 P. M. Following is the program:

"The Misplacements of the Intra Abdominal Viscera and Their Effects,"
Dr. S. E. Maynard.

Discussion opened by Dr. D. C. Hawley.

RECENT DEATHS.

Eliphalet E. Houghton, M. D., Castleton (Vt.) Medical College, 1853, died at his home in Schevinus, N. Y., December 2, aged 73.

Sherburne L. Wiswell, M. D., Vermont Medical College, Woodstock, 1853, died at his home in Cabot, Vt., November 26, aged 79.

Dr. William R. Hutchinson died at his home on North Main street in Enosburg Falls, Vt., Saturday evening, November 26, after a long illness of cancer. Dr. Hutchinson was a graduate of Castleton (Vt.) Medical College, class of 1848.

The Pope Bicycle Daily Memorandum Calendar for 1905 contains a memorandum leaf for every day in the year, and 365 original sayings in favor of good roads, good health, outdoor exercise, and that great vehicle of health-giving, the modern bicycle, by our most eminent living men of marked accomplishment. The calendar is free at Pope Mfg. Co.'s stores, or any of our readers can obtain it by sending five 2 cent stamps to Pope Mfg. Co., Hartford, Conn., or 143 Sigel St., Chicago, Ill.

Our fountain pen offer is unparalleled.

Dr. Caverly Succeeds Himself.—Dr. C. S. Caverly of Rutland has been reappointed to succeed himself as a member of the State Board of Health for six years. For a long time Dr. Caverly has been President of the Board, and in a trying position, has repeatedly shown his ability and fitness for the position. The medical profession to a unit endorse Dr. Caverly's reappointment, and no man can ask for a greater compliment.

A considerable party of Vermont physicians are going to attend the meeting of the American Public Health Association at Havana, Cuba. Among those who expect to go are Dr. D. C. Hawley and Dr. B. H. Stone of Burlington, Dr. C. S. Caverly of Rutland and Dr. H. D. Holton of Brattleboro.

See our great fountain pen offer, for old as well as new subscribers. If you need a new pen or an extra one, *write to-day.*

The Vermont Medical Monthly.

A JOURNAL OF REVIEW, REFORM AND PROGRESS IN THE MEDICAL SCIENCES.

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Burlington, Vt., December 25, 1904.

EDITORIAL.

SHOULD MRS. ROGERS HANG?

With all due respect to those who believe that Mrs. Rogers, the Bennington murderess, should pay the death penalty, we cannot help but feel that the good name of Vermont will suffer if this poor wretch is sent to the gallows.

If there ever was a creature who gave unmistakable evidences of being a moral pervert, it is Mrs. Rogers. A careful unbiased study of her mentality, her habits, the consummation of her crime, and everything about her, proves conclusively that she is absolutely irresponsible. She is an animal, with no higher instincts, nor higher conceptions of right or wrong than the brute, but it is a trick of fate, and not her own fault. The spirit of human charity should recognize these facts, and while in no sense condoning her crime, should make ample allowance for her irresponsibility and utter lack of mental balance. Revenge is not the function of the death penalty, and while admitting that it is designed for the protection of society, both by punishing and eliminating the criminal, and by acting as a deterrent measure on others, we earnestly claim that a full knowledge of responsibility on the part of the criminal alone justifies the legal taking of his life.

If the hereditary, environal, or pathological conditions in any individual's life deny him the knowledge of his true relations to his fellow-beings and society, we maintain that he is not responsible and is just as much a public charge as a raving maniac. Conditions are reversed and the responsibility is really shifted to those who should recognize the irresponsibility of such an individual and act accordingly. The time is certainly coming when society will recognize many criminal acts as important signs of mental degeneration as hallucinations, delusions or the other evidences of typical insanity.

If capital punishment is wrong and unjust for the typically insane, it is equally so for those showing other phases of irresponsibility, and we believe that Mrs. Rogers belongs to this latter class. She may not be insane in the ordinary acceptance of the word, but that she is aberrent at all is sufficient to raise the question of her responsibility.

Incidentally, then, we believe that justice will in no wise be defeated if this woman be reprieved, pending more thorough and decisive investigation concerning her mental and moral responsibility. It must be hard for a governor to allow any creature, however bad, to be legally ushered out into the "Great Unknown," inasmuch as he alone has the power, conferred on him by the people, to say nay. Indeed it hardly seems fair to vest one man with the powers of life or death, for this is what the pardoning or reprieving power of a governor really amounts to. It burdens him with a responsibility too great for any one man, whoever he may be. Therefore a pardoning or reprieving board provides a much wiser system, and while Vermont has never witnessed such a plan, Governor Bell will be

executing the laws of Vermont with just as close adherence to duty if he reprieves Mrs. Rogers and submits the question of her mental responsibility to a competent board of investigation, as he will be if he lets her hang on Feb. 3, 1905. Such a board might consist of three competent physicians, three competent lawyers and three broad, intelligent laymen. The best men could be easily induced to serve, for they would recognize the call of a high duty on behalf of humanity and the State.

Therefore, without a bit of maudlin sentimentality, and with full appreciation of Mrs. Rogers' guilt, we nevertheless earnestly and sincerely hope that Governor Bell will show the world that Vermont is in thorough touch with the spirit of the Twentieth Century, by removing every doubt of Mrs. Rogers' mental responsibility before allowing her execution. Twentieth Century progress is not silly and sensational, nor yet is it foolishly sympathetic, but it does recognize the sacredness of life and the mental irresponsibility of the weak and perverted. There are strong reasons for believing Mrs. Rogers a mental and moral degenerate, and to hang her without stronger proof to the contrary, will jeopardize the honor and justice of our State.

THE PROBLEM OF MEDICAL REGISTRATION.

For a long time it has been evident throughout the United States of America that the problem of medical registration is an important one to the medical profession. Stringent laws have been established in most all of the States, with the result that the standards of medical education have been raised, and the interests of the people have been protected in every way. But while the most casual observer must admit that many benefits have come from raising the qualifications necessary to medical practice, within late years it has been evident that there are limitations to the State control of medical licenses. Therefore, it has been suggested, in order to overcome some of the disadvantages of State registration, that each State incorporate the principle of reciprocity in their medical laws. That is, for all States with similar qualifications to recognize the licentiates of sister States and admit them to practice. Several States have adopted such methods, and they have been found to work with a considerable degree of success. That such measures tending toward reciprocity are not universal is to be regretted, but as long as the State requirements vary, it cannot be expected of course.

It would seem, therefore, that the time is ripe for some national action which will enable properly qualified physicians to practice in any State in the Union without having to take repeated examinations. These examinations work an unnecessary hardship, and are not essential to obtain the real objects of medical registration.

In view of present agitation it is to be hoped that a national law will be enacted at an early date covering all the mooted questions. When that law is enacted, however, it seems to us that the wisest course will be to create different classes of those who wish to practice medicine in the United States of America, or the colonies. The first class should include all of those physicians who are able to present the highest credentials, and who can pass the highest form of an examination. The second class should consist of those physicians whose credentials and qualifications fall below the first class. The third class should consist of all those who possess few credentials, and wish to practice peculiar or spurious forms of healing. Such a plan as this will enable all classes of men who aspire to the healing art to practice their professions in whatsoever way they will. But to avoid chicanery and quackery, every

licentiate should be obliged to print on his sign in connection with his medical title definite information in regard to the class to which he belongs. For instance, DR. JOHN BROWN, *licentiate, U. S. A., First Class;* or DR. WILLIAM JONES, *licentiate, U. S. A., Second Class;* or, still further, PROFESSOR HEALEM QUICK, *licentiate, U. S. A., Third Class.*

We sincerely believe that some method similar to the above would accomplish unlimited good, not only in raising the standard of medical qualification, but in eliminating the dangers from unscrupulous and incompetent practitioners. The preposterous claims and wonderful statements emanating from the unlimited number of faith curists, magnetic healers, etc., springing up all over the country would be nullified to a very large extent, inasmuch as they would have to define themselves as members of the third class. Then again among legitimate practitioners a first class license would be eagerly sought for, as no honest, sincere physician would care to be considered less capable than any of his brother practitioners. It would act as a stimulant to substantial worth and tend to do away with inefficiency and unfitness.

The rights of no one would be interfered with, but it would make all men practicing medicine stand forth in their true relation to their fellow-men. They would not be allowed to sail under false colors, as is so often the case now, but each man would have to stand for what he was worth and what he knew. We hope that the time is not far distant when the government will take the matter up and place this whole question of medical registration on a sound substantial footing. The medical profession owes it to itself to work for this end, and the people owe it to the honest, competent medical men of America to stand by all efforts which tend toward medical progress.

THE QUESTION OF PROPRIETARIES.

The antagonism in certain quarters to proprietaries is rapidly reaching a phase of acute hysteria. Several excellent journals, sane and sound in every other particular, are making themselves ridiculous in their hysterical crusade against private formulas and proprietary remedies. They insist on the publication of a formula with each advertisement, but like those who "want to eat of the pudding, but save the pudding string," the formula can be any old thing, and some of the formulas printed cannot fail to cause a smile. They are about as explicit as some old mammy's recipe for her famous hoe cake,—"some o' dis, an' some o' dat, an' some o' dat an' some o' dis; den cook to suit you selbes, an' eat when eber you want ter." The formulas in a great many instances mean little or nothing, and their publication in the light of editorial contention is an insult to the readers of such journals. It is an all too evident attempt to appear righteous, and do—different.

The whole question of the warfare on so-called secret proprietaries smirks of sensationalism. In the multiplication of doctors and medical journals there is a constantly growing search for new subjects for agitation and new means for aggrandizement. There is always a class who, if they cannot create, refuse to accept the order of things, and so devote their energies to breaking down what others have built. The same spirit makes the nihilist what he is, and robs many a man of the credit, honor or peace that should be his. It is responsible for most of the world's unhappiness, and while giving nothing to mankind, takes much away. The basis of it all is the human tendency toward ugly, jealous envy, bereft of the neutralizing desires to advance by work and worth.

Frankly, with all due respect to those who think differently, we have none of this soul-

stirring antipathy to honest proprietary remedies. We maintain that modern therapeutics owe much to the pharmaceutical studies and researches which have produced so many of our leading proprietary preparations. Much of our present day knowledge concerning pharmacal products has come through commercial enterprises. Therefore we earnestly believe that a field of activity which has accomplished so much good, indirectly perhaps, but none the less surely, should not be condemned wholesale.

We make a distinction between the honest proprietary and the dishonest proprietary. The first is a preparation or combination of drugs which after careful, painstaking study has been found by its manufacturers to have a definite field of usefulness. It is submitted to the medical profession and its intelligent use enlarges or narrows its therapeutic value. A certain amount of information concerning its ingredients, if a combination of drugs, assuredly facilitates its intelligent use by the physician, but the specific quantity of each ingredient is not necessary, for it is from the combination as a whole that the chief value often comes. The manufacturer, who perhaps has spent hundreds or thousands of dollars in perfecting the formula and its special ingredients, cannot be expected to give gratuitously the products of his time, thought and money. This may be proper in the next world, or some future Utopia, but the substitutor and unscrupulous pharmacist are too prevalent just at present to justify or even make advisable any such altruistic act. Then again it should be remembered that the manufacturer forces no one to use his preparation. They can take it, or leave it, just as they wish. Those who find it worthy should expect to pay a reasonable price, and if it is worthless it is dear at any price. Every manufacturer knows therefore that his product depends primarily on its real value. Advertising may create a temporary demand for anything, but true worth must also exist to establish a permanent one. This is the keynote of the whole matter,—worth. If a preparation is worth anything and has a field of usefulness justified by experience, knowledge of its exact formula is not necessary to warrant its use. A physician who refuses to use a pharmaceutical product because he does not know just how it was made, or just how much of everything it contains, is to be pitied for his mental strabismus. If he carries the principle to its logical conclusion, he will have to supervise or personally prepare everything given to his patients. The statements of his druggist or dispenser may be wrong and he is not doing his whole duty by his patients in not eliminating every uncertainty!

How absurd and far-fetched this all is. This old world is full of deceit and untruth, but we are not quite ready to let our haste lead us into the error of branding all men as liars. There is a lot of good and truth and honesty and trustworthiness among men after all. Consequently we are going on using such proprietaries as appeal to our judgment, needs and experience, and we claim the sole right of deciding the matter for ourselves. We are the last court of decision in regard to our own acceptance or rejection of any method, preparation or drug, and so long as no one suffers from the exercise of our own conscience and judgment, *no man can say us nay!*

The time is past when cult, school or pathy have any place in the intelligent practice of medicine. Every physician has a definite obligation in his work,—to accomplish the most in the best possible way. No different ethics are needed for a practitioner of medicine than for any other honest man. Those who think differently can fight the matter out for themselves. For us there is only one code for all mankind,—that of the humble Galilean. The Golden Rule, backed by an earnest attempt to make the most of what one is, to tell

the truth, and to recognize no defeat but death, is code enough for any man.

In regard to dishonest proprietaries no argument or condemnation is necessary. They are not what they claim to be, they betray the trust they falsely create, and they are evils that should be fought. Experience is often necessary to discover them, but when discovered they should be given a wide berth.

In conclusion we have only this short word to say, honest proprietaries fill an important place in the modern treatment of disease. If they are honest and worthy, their measure is in results, and honest results count for the most in the practice of medicine to-day.

If not, what does?

THE PASSING OF 1904.

As 1904 passes back into the shades and takes its place in history, we wish to extend to all our friends the greetings of the Season. Ten years have come and gone since our journal came into being, and as we look back over these years, fraught with struggles, trials and tribulations, well mixed, however, with many bright things, we have one reason to feel proud and satisfied. *No one has ever been personally attacked, insulted or abused in the editorials of this journal.* Our policy has been to speak well of whoever we could, and when nothing good was to be said, we have said nothing. As a medical journal, we have stood for good will, friendliness and friendship in the medical profession, and while we cannot say how well we have builded, we have never torn down the work of others.

The nihilist in medicine is responsible for much of the spirit which denies the medical profession the harmony and friendships which should be enjoyed. And so to the nihilist in medicine we have only this to say: "What's the use?" Why not direct energies toward study, research, or little acts of kindness. all constructive, instead of breaking down your neighbor's work, character, name or happiness? Is the pleasure of destruction worth the while, when so much more can be gotten out of life by building up something, if it is only a reputation for work? *We doubt if it is.*

MEDICAL ABSTRACTS.

Pancreatic Inflammations—Mayo Robson, in *Dom. Med. Monthly,* shows that recent clinical observations and operative experience prove that inflammatory affections of the pancreas or its ducts are very much more common than is generally supposed. In showing the frequency of pancreatitis, and the very serious nature of the acute, subacute and chronic varieties of the disease, Robson demonstrates that very much can be done for these patients by timely surgical intervention. Cases of pancreatitis due to gall-stones may be prevented by timely interference, and that with barely one per cent. of risk. Gall-stones may exist in the gall bladder without causing trouble, and without giving notice of their presence, but, as is well known, as soon as they pass into the cystic duct, or as soon as they begin to produce catarrh, they give evidence of their presence. If the concretions are removed in that stage there should be no mortality and, Robson continues, the operative treatment of cholelithiasis, undertaken before the onset of deep jaundice and infection of the bile and pancreatic ducts, with due care and in skillful hands, is almost devoid of danger. Furthermore, the early surgical treatment of gall-stones will prevent the occurrence of many serious cases of pancreatitis that cause danger to life. This paper is an excellent resume of modern knowledge of the subject of pancreatitis, but is so lengthy that we must refer our readers to the article itself, contenting ourselves with the few excerpts given above.—*Jour. of the A. M. A.*

STRAY THOUGHTS.

A Mistaken Inference.—Senator Proctor, of Vermont, tells, with much amusement, of a time when he was taken for a Mormon elder.

The Senator, accompanied by Mrs. Proctor, and a party of some fourteen persons, was making a tour of the West. A stop was made at Salt Lake City, and the party started out for a walk about the city. Senator Proctor and his wife headed the procession, and the ladies of the party brought up the rear, going in pairs.

That very same day another party of Easterners was making the rounds of Salt Lake City, and when they encountered the Proctor party in the main street they stood aside to let them pass.

"Well, well!" exclaimed one of the second party; "there's a sight! Look at that old Mormon and his wives. Out for a constitutional, I suppose. I wonder," he added, "if he has any more."—*Saturday Evening Post.*

The Man Who Cheats His Work.—An employer of thousands of men was asked what thing in all his large operations gave him the most concern. "The man who does a little less than is expected of him," was the reply. "He is the dangerous factor in all business. The absolute failure we readily discover and discharge, but the 'almosts' escape detection for months and often for years, and they make our losses as well as our fears," and with a very serious smile he added, "The drip in business is worse than the leak."

It is a condition that is as old as human experience. Eighteen and a half centuries ago Seneca put it in these words: "Some portion of our time is taken from us by force; another portion is stolen from us; and another slips away. But the most disgraceful loss is that which arises from our own negligence; and if thou wilt seriously observe, thou shalt perceive that a great part of life flits from those who do evil, a greater from those who do nothing, and the whole from those who do not accomplish the business which they think they are doing."

Thousands of men fancy they are fulfilling their duty to their employers and to their tasks by keeping hours and performing just enough to hold on to their positions. They have an idea that to do more would be to give larger service than their compensation required. They object to what they believe would be extra values. "The old man shan't get more than he's paying for," is the vernacular.

Possibly it never strikes these trimmers that in cheating their work they are doing double damage; they are injuring their employers much, but they are robbing themselves more; they are, in fact, losing everything in life that is worth while. They fare worse than if they did nothing at all, for time with all its precious values slips entirely from them and leaves no substance or satisfaction.

Half doing soon brings undoing. It is the nine-tenths doing or the ninety-nine one-hundredths doing that bleeds business and saps character.—*Saturday Evening Post.*

NEWER REMEDIES.

HYDROGEN PEROXIDE.

HOW BREAKAGE OF BOTTLES CAN BE REDUCED TO A MINIMUM.

(Abstract from the *National Druggist*, of Saint Louis, Mo., October, 1904.)

The greatest obstacle that lies in the way of producing a sound container for liquids occluding gases under high pressure, as, for instance, solutions of hydrogen peroxide, is the fact that no process for making unbreakable glass has yet been discovered.

Up to the present, the ordinary amber glass bottles have been found totally inadequate and untrustworthy, though a device patented by Mr. Charles Marchand goes far towards overcoming this delinquency.

This device practically reduces the danger of bursting of the bottles to a minimum. As long as the bottles, having this device, are kept in stock standing up, the pressure resulting from shaking, high temperature in course of transit, etc., will not rise much above four or five pounds to the square inch; and, therefore, though occasionally a bottle may crack or burst, it is not due to pressure, but to the inherent imperfection of the glass, arising either from the lack of homogeneity, or else imperfect annealing, or both, to which we have already referred.

The worst feature of this unreliability of the bottle is, that there is no accurate way of detecting it. A bottle may be submitted to a pressure of a hundred pounds to the square inch, without betraying signs of weakness, yet even with nothing in it, it may burst or crack within an hour.

The only remedy in these conditions as to the bottles, and that is not absolute, is in changing the material from which the containers are made, and substituting, for the unreliable amber glass, a good article of flint glass. While, as we have intimated, this does not absolutely remove the danger of loss by explosion or cracking, it greatly reduces it, and when the flint glass container is closed by Marchand's Safety Valve Stopper, danger is reduced to a minimum, beyond which, in the present condition of the technics of bottle-making, it is impossible to go.

That is exactly what Mr. Charles Marchand, the manufacturer of hydrozone, glycozone, peroxide of hydrogen, etc., intends to do. Just as soon as his present stock of amber glass containers is exhausted, he will use exclusively flint glass, every bottle being corked with an automatic safety valve stopper. By adopting these expedients, Mr. Marchand, having done all in his power to prevent breakage, can go only one step further—to make good any losses from that direction—replace the bottles that get broken from this cause. Beyond this, it would be unreasonable to expect him to assume further responsibility. The actual danger to life or limb from the bursting of a bottle of hydrogen peroxide, or any of Mr. Marchand's preparations, is trivial, as compared with those arising from the explosion of bottles of beer, ginger ale, champagnes and other sparkling wines, or even Apollinaris or other heavily aerated waters.

When any of these rupture, the fragments are driven, not only with all the force and energy of the already liberated gases, but with the augmented energy of the residual gas suddenly set free, and so may inflict severe, sometimes irreparable damage. The safety-valve arrangement in the stopper of bottles of hydrozone, prevents the sudden disengagement of a great volume of gas.

Assuming that through some imperfection of the stopper, the puncture should close as soon as the pressure from within rose to a point far within that required for the rupture of the bottle, the stopper, not being wired, but merely tied down, will be forced out.

But glass is a proverbially brittle and treacherous substance, and it is liable to break in the hands of anybody, at any moment, and without any discoverable or apparent cause, and that whether filled or not. As a consequence there must always be some risk attached to the handling of glass containers. The best that can be done, as we have suggested elsewhere, is to reduce the risk of rupture or fracture to a minimum, and this Mr. Marchand has done, not only by his safety stopper device, but also by the promised substitution of the stronger flint glass. The retail trade will, we are sure, welcome this lat-

ter change most heartily, since it completes and supplements the efforts made in the mechanical direction, and thus removes, as far as lies in human efforts, all danger arising from handling Marchand's goods.

Various preparations of Cod Liver Oil have appeared in the market during the past ten years, but for palatability and efficiency none of them has surpassed Hagee's Cordial of Cod Liver Oil Comp. This preparation has become a standard with many doctors all over the country, and the results achieved are most satisfactory. The freedom from grease and the fishy odor makes it peculiarly acceptable to patients with weak stomachs.—*Southern Medicine and Surgery.*

An Old Remedy Combined with a Newer One.—The *Massachusetts Medical Journal* recently published the following which will no doubt be interesting to our readers:

"We believe that members of the medical profession should familiarize themselves with the combination tablet of antikamnia & heroin. The first of these, antikamnia, years ago established a prominent place for itself as a most reliable antipyretic, antineuralgic, and general pain reliever, while heroin is, by all odds, the most efficient of recent additions to our list of remedies. The advantages of this combination are fully illustrated by a report of cases submitted to us by Dr. Uriel S. Boone, Professor of Surgery and Pharmacology, College of Physicians and Surgeons, St. Louis. We reprint three of said cases, as each has some particular feature which successfully called into use in a most beneficial manner, the synergetic action of these two drugs:

Case I.—J. P., athlete. Suffering from an acute cold. On examination found temperature 101° with a cough and bronchial rales. Patient complained of pain induced by constant coughing. Prescribed antikamnia & heroin tablets, one every four hours. After taking six tablets, the cough was entirely relieved. Patient continued taking one tablet three times daily for three days, when he ceased taking them and there has been no return of the cough or pain.

Case II.—Ed. H., age 30. Family history, hereditary consumption. Hemorrhage from lungs eighteen months ago. His physician had me examine sputum; found tubercle bacilli. After prescribing various remedies with very little improvement, I placed him on antikamnia & heroin tablets, prescribing one tablet three times a day and one on retiring. He has since thanked me for saving him many sleepless nights and while I am aware he never can be cured, relief has been to him a great pleasure and one which he has not been able to get heretofore.

Case III.—Wm. S., age 28. Lost 20 pounds in last 30 days. Consulted me July 9th. I thought he most certainly would fall victim to tuberculosis. Evening temperature 101°, with night sweats and a very troublesome cough with lancinating pains. Prescribed 1-100 gr. atropine to relieve the excessive night-sweats and one antikamnia & heroin tablet every four hours, with the result that he has entirely recovered and is now at work as usual.

Neither in these, nor in any other of my cases, were any untoward after-effects evidenced, thus showing a new and distinctive synergetic action and one which cannot help being beneficial."

A Few Remarks on Asthma.—Asthma is entirely a spasmodic condition produced by a spasm or contraction of the circular muscular fibres of the air tubes by which the tube caliber is reduced and breathing becomes abnormally difficult. It is a most oppressive condition and when the spasm is over it leaves the patient much exhausted. It is essential to prevent the asthmatic attack as far as it is possible. The point of greatest importance in the treatment of the sufferer is the improvement of the general health; if this can be accomplished the system is necessarily supplied

with normal power to fight the cause or causes which bring on an attack and to stand the strain of the attack. A constant shortness of breath, aggravated at times by colds after exposure indicates either an asthmatical or emphysemic condition. In this condition the air cells are abnormally dilated and frequently torn so that they coalesce one with another and the normal elasticity of the lung is greatly reduced, consequently, the patient cannot properly empty the lungs. As the result of this the chest becomes barrel-shaped and the respiratory movements are very much diminished, and consequently the blood is very imperfectly oxygenated and the general system shows a mal-nutrition and anaemia. To prevent the tearing of the cells into each other, as well as the spasms, it is highly necessary to improve the condition of the lung tissues by building up the general system. Where this is completely accomplished it relieves the distressing sensation of shortness of breath. It lessens the tendency to rupture and reduces the respiratory spasm. To restore the natural nutrition of the lung tissue is to enable it to recover its elasticity and this can only be done completely by supplying an absolute and perfect nutrition.

In a large clinical experience I have found that Bovinine meets every demand and can be given with impunity at all ages. It supplies perfect nutrition, tones up the enfeebled circulation, and keeps up a proper and gentle stimulation.—E. E. Rowell, Jr., M. D.

BOOK REVIEWS.

Physician's Pocket Account Book.—By J. J. Taylor, M. D. Price, $1.00. Published by the Medical Council, 4105 Walnut St., Philadelphia.

We can recommend this handy pocket account book as meeting every need. The readiness with which accounts are kept and referred to is gratifying. Although containing 200 pages, the book is easily carried in a coat or hip pocket.

Physician's Visiting List for 1905.—P. Blakiston Sons & Co. Full leather. Price $1.00. Philadelphia, Pa.

One of the best pocket account books. Handy in every way and easily kept. The size is good and it is nicely bound and prepared.

LITERARY NEWS ITEMS.

E. B. Treat & Co., 241 West 23d Street, New York, announce important books for early delivery. Diseases of the Stomach and Intestines, with an account of their relation to other diseases, and the most recent methods applicable to the diagnosis and treatment of them, designed to meet the need of general practitioners. By Boardman Reed, M. D., Philadelphia, in a series of eighty-two lectures, complete in one volume. 1024 pages. Illustrated. Half mor., $6.00; cloth, $5.00.

Blood Pressure, as affecting Heart, Brain, Kidneys and general circulation. A practical consideration of Theory and Practice. By Louis F. Bishop, A. M., M. D., Physician to Lincoln Hospital and French Hospital, New York. 12mo., cloth, $1.00.

Disorders of Metabolism and Nutrition. By Prof. Dr. Carl von Noorden, Physician-in-Chief of City Hospital, Frankfort-on-Main, and Assistants. Authorized American edition edited by Boardman Reed, M. D. The fifth of the series of Monographs, "Saline Therapy." 75c, is now ready. The preceding issues are "Obesity," 50c.; "Nephritis," $1.00; "Colitis" (Colica Mucosa), 50c.; "Acid Autointoxications," 50c.; and will be followed shortly by Gout, Diabetes, Limitations of Liquid Food, etc.

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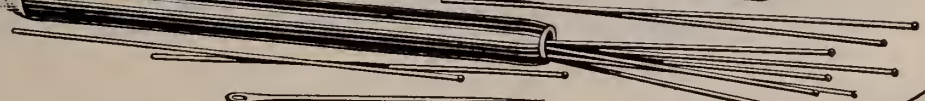

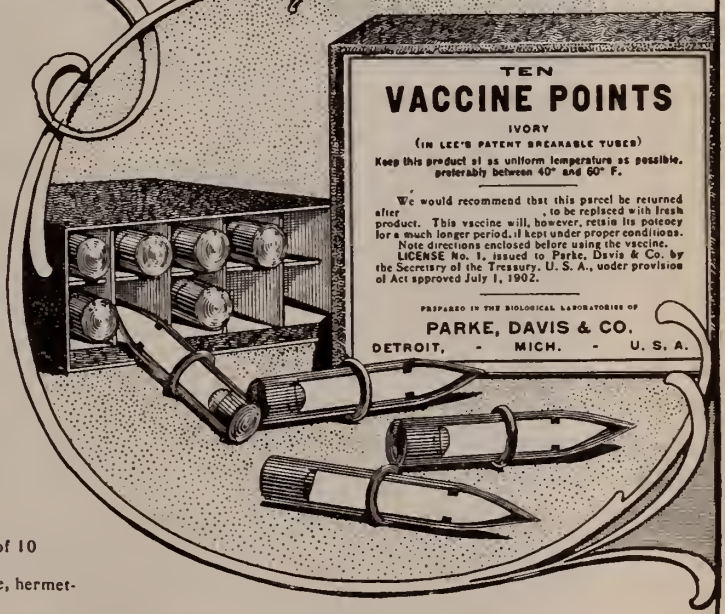

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Ivory Points, each in a Lee's breakable glass case, hermetically sealed, boxes of 10.

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ALKALOMETRY VERSUS GALENICALS.—Every practitioner has recognized the want of reliability of the galenical preparations as dispensed by the pharmacist. It seems impracticable to obtain such preparations of the due degree of potency from different druggists, or from the same druggist at different times. The leaves or flowers or roots, etc., of the same medicinal plants vary in the prescription store —whether due to the inferiority of different samples, or the time of gathering and mode of preparation for the market, or the length of time they have remained in bulk or on the shelves of stores. It needs no further proof than that of experience that most of these galenical preparations, as found even in the best of drug stores, are unreliable—sometimes too strong, but most frequently too weak. The physician scarcely knows the proper dose of such preparations, coming from different reliable druggists—however honest they may be.

Such, however, is not the case with the *alkaloids.* So much morphine and no more is derived from the poppy, so much strychnia, from strychnos nux vomica, etc.

The time is at hand when the practitioner has learned these facts, and no one more than he should rejoice that the alkaloids have been extracted and prepared for use from such a large number of medicinal plants, etc.

The alkaloidal method makes it easy to prescribe "the smallest possible quantity of the best obtainable means to produce a desired therapeutic result." These alkaloidal preparations also enable the physician who has to dispense his own drugs to carry about with him as large a variety of the active principles of different drugs as he is apt to need in his routine practice.

With reference to such preparations the country doctor, as a rule, is ahead of the city doctor, who still sends his old galenical prescriptions to the pharmacist. Hence the frequent difference in the reports as to the value of different drugs, as prescribed galenically or alkaloidally. Economy of space, convenience of administration and equable reliability of preparations are all in favor of alkalometry. It is surpassing strange that so many of the standard text books on materia medica and therapeutics have not dealt with this subject as they should have done. We hope for improved standard text books for our students and practitioners.

In these days of high class lithography, when copies of original paintings are produced so that it requires an expert to detect the difference, we feel at liberty to recommend to our readers the lithograph in eleven colors of "Go-Shono," the Apache Medicine Man, the Tongaline calendar for 1905, which has been issued by the Mellier Drug Company of St. Louis.

This lithograph of "Go-Shono" has been made from an original photograph taken from life and is unquestionably the most wonderful representation of the Apache Indian, the tribe famous for the craft, cunning and brutality of its chiefs.

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PEACOCK'S BROMIDES

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Each fluid drachm represents 15 grains of the combined C. P. Bromides of Potassium, Sodium, Calcium, Ammonium and Lithium

DOSE One to three teaspoonfuls, according to the amount of Bromides required

Neurologists and General Practitioners prefer it because of its superior qualities over the commercial salts

CHIONIA

Prepared from Chionanthus Virginica, from which the inert and objectionable features of the drug have been eliminated

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One to two teaspoonfuls three times a day

For clinical trial we will send full size bottle of either or both preparations to any physician who will pay express charges

Hepatic Stimulation Without Catharsis

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A Palatable Preparation of
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A full size bottle, for trial, to physicians who will pay express charges

DOSE—One to two teaspoonfuls three times a day

IT PROMOTES NORMAL DIGESTION BY ENCOURAGING THE FLOW OF DIGESTIVE FLUIDS

It is the modern and most successful treatment for
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CACTINA PILLETS

Samples mailed to physicians only

DOSE—One to four pillets three times a day

Has Many Advantages Over Other
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ALLAYS THE ASSOCIATED IRRITATION AND ALLEVIATES THE COUGH, LIQUEFIES AND AIDS EXPULSION OF THE ALTERED SECRETIONS. IS FREE FROM THE UNTOWARD EFFECTS; DISORDERING THE STOMACH, PRODUCING CONSTIPATION, ETC.

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¶ The ideal safe family laxative, known as—Syrup of Figs—is a product of the California Fig Syrup Co., and derives its laxative principles from senna, made pleasant to the taste and more acceptable to the stomach, by being combined with pleasant aromatic syrups and the juice of figs. It is recommended by many of the most eminent physicians, and used by millions of families with entire satisfaction. It has gained its great reputation with the medical profession by reason of the acknowledged skill and care exercised by the California Fig Syrup Co. in securing the laxative principles of the senna by an original method of its own, and presenting them in the best and most convenient form. The California Fig Syrup Co. has special facilities for commanding the choicest qualities of Alexandria senna, and its chemists devote their attention to the manufacture of the one product. The name—Syrup of Figs—means to the medical profession "the family laxative, manufactured by the California Fig Syrup Co.," and the name of the Company is a guarantee of the excellence of as product. Informed of the above facts, the careful physician will know how to prevent the dispensing of worthless imitations when he recommends or prescribes the original and genuine—Syrup of Figs. It is well known to physicians that—Syrup of Figs—is a *simple*, *safe* and *reliable* laxative, which does not irritate or debilitate the organs on which it acts, and, being pleasnt to the taste, it is especially adapted to ladies and children, al though generally applicable in all cases. Special investigation of the profession invited.

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